

**订单排程设计**

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| 文件状态：  [ ] 草稿  [ ] 正式发布  [√] 正在修改 | 文件标识： | ZOOMTEL-DESIGN -0006 |
| 当前版本： | 1.0 |
| 作 者： | 孙宁 |
| 完成日期： | 2017-12-26 |

版 本 历 史

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| 版本/状态 | 作者 | 参与者 | 起止日期 | 备注 |
| 1.0 | 孙宁 |  | 2017．12．26 | 订单排程设计说明 |
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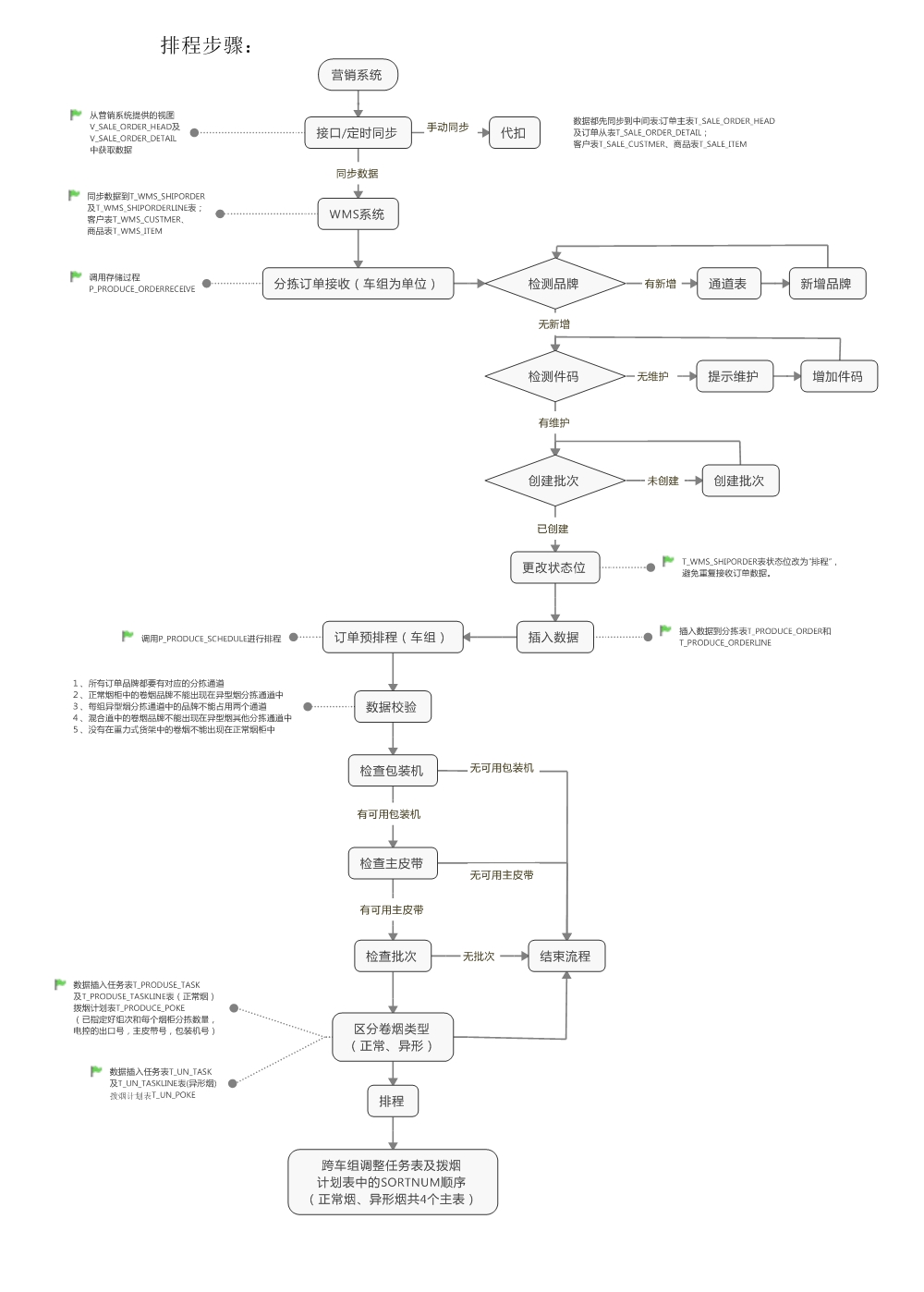
## 编写目的

**本文档针对长株潭烟草物流提出的修改需求来编写的设计文档。**

## 背景

1. 1.0版本阶段开发；
2. 此系统基于微软.NET平台开发，采用EF4.0框架；
3. 数据库采用Oracle 11G
4. 本系统由湖南中特信息技术有限公司研发组开发；

# 排程步骤流程图



# 步骤说明

## 基础数据来源

### 营销接口

基础数据包括商品信息、零售户信息、订单信息，从营销系统提供的中间表V\_SALE\_ORDER\_HEAD、V\_SALE\_ORDER\_DETAIL中进行获取。

### 获取方式

基础数据的获取方式分为二种：

定时同步：设定一个同步时间，到达指定时间自动进行数据同步。

手动同步：非自动同步时间需要进行数据同步时，手动进行数据同步。

### 同步数据

从营销系统定时自动同步的数据，将先存放在信息系统中间表T\_SALE\_ORDER\_HEAD(订单主表)、T\_SALE\_ORDER\_DETAIL(订单从表)、T\_SALE\_CUSTMER(客户表)、T\_SALE\_ITEM(商品表)中，再从中间表同步到WMS系统的T\_WMS\_SHIPORDER(订单主表)、T\_WMS\_SHIPORDERLINE(订单从表)、T\_WMS\_CUSTMER(客户表)、T\_WMS\_ITEM(商品表)中。

### 数据库设计

#### 表设计

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **表名** | T\_WMS\_ITEM | | | 描述 | | 卷烟信息表 | | | | | | | | **库名** | | Zoomtel |
| **序号** | **索引名称** | | | **索引关键词** | | | | | | | | | | **唯一** | | **聚族** |
| 01 | ITEM\_PK | | | ID | | | | | | | | | | Y | | N |
| **序号** | **字段名描述** | | | **字段标识** | | | | **类型长度** | | **空** | **主** | **外** | **Def** | **备注** | | |
|  | 主键 | | | ID | | | | VARCHAR2(30) | |  | Y |  |  |  | | |
|  |  | | | DCNO | | | | VARCHAR2(40) | | Y |  |  |  |  | | |
|  | 货主 | | | SHIPPER\_ID | | | | INTEGER | | Y |  |  |  |  | | |
|  | 商品代码(超过7位为罚没烟) | | | ITEMNO | | | | VARCHAR2(20) | |  |  |  |  |  | | |
|  | 商品名称 | | | ITEMNAME | | | | VARCHAR2(50) | |  |  |  |  |  | | |
|  | 商品简称 | | | SHORTNAME | | | | VARCHAR2(50) | | Y |  |  |  |  | | |
|  | 规格 | | | SPEC | | | | VARCHAR2(80) | | Y |  |  |  |  | | |
|  | "A类 - 10  B类 - 20C类 - 30  默认值为 C 类" | | | ABCCODE | | | | INTEGER | | Y |  |  |  |  | | |
|  | 商品价格 | | | ITEMPRICE | | | | NUMBER(18,6) | | Y |  |  |  |  | | |
|  | 0为正常烟，1为异性烟 | | | SHIPTYPE | | | | CHAR(1) | | Y |  |  |  |  | | |
|  | 1卷烟 2三方 | | | ITEMTYPE\_ID | | | | NVARCHAR2(40) | | Y |  |  |  |  | | |
|  | 产区0：省内，1：省外，3：国外 | | | PRODUCEAREA | | | | NVARCHAR2(50) | | Y |  |  |  |  | | |
|  | 制造商 | | | MANUFACTURER\_ID | | | | NUMBER | | Y |  |  |  |  | | |
|  | 供应商 | | | VENDOR\_ID | | | | NUMBER | | Y |  |  |  |  | | |
|  | 基本计量单位 | | | BASEUOM\_ID | | | | VARCHAR2(30) | | Y |  |  |  |  | | |
|  | 库存计量单位 | | | DEFAULTUOM\_ID | | | | VARCHAR2(30) | | Y |  |  |  |  | | |
|  | 存储条件 | | | STORAGECONDITION | | | | VARCHAR2(30) | | Y |  |  |  |  | | |
|  |  | | | ISLOTCTRL | | | | INTEGER | | Y |  |  |  |  | | |
|  | 贮藏期限 | | | SHELFLIFE | | | | INTEGER | | Y |  |  |  |  | | |
|  | 是否上架销售 1上架 0 下架,多用于第三方 | | | SHELFLIFETYPE | | | | VARCHAR2(1) | | Y |  |  |  |  | | |
|  | 托盘比例 | | | PALLETRATIO | | | | NUMBER(3) | | Y |  |  |  |  | | |
|  | 创建日期 | | | CREATETIME | | | | DATE | | Y |  |  |  |  | | |
|  | 创建人 | | | CREATEUSER | | | | VARCHAR2(20) | | Y |  |  |  |  | | |
|  | 修改时间 | | | MODIFYTIME | | | | DATE | | Y |  |  |  |  | | |
|  | 修改人 | | | MODIFYUSER | | | | VARCHAR2(20) | | Y |  |  |  |  | | |
|  | 0删除,10为正常 | | | ROWSTATUS | | | | INTEGER | | Y |  |  |  |  | | |
|  |  | | | CATID | | | | INTEGER | | Y |  |  |  |  | | |
|  | 件烟条形码，件烟码前6位,(91)除外 | | | BIGBOX\_BAR | | | | VARCHAR2(30) | | Y |  |  |  |  | | |
|  | 条烟条形码 | | | PACK\_BAR | | | | VARCHAR2(30) | | Y |  |  |  |  | | |
|  | 商品类别 1：商品，2：促销品，3：样品，4：罚没烟，5：其他 | | | ITEM\_KIND | | | | CHAR(1) | | Y |  |  |  |  | | |
|  | 价类 1：一类，2：二类，3：三类，4：四类，5：五类，6：无价类 | | | KIND | | | | CHAR(1) | | Y |  |  |  |  | | |
|  | "盒支比率 | | | H\_SIZE | | | | NUMBER(20,2) | | Y |  |  |  |  | | |
|  | 条支比率 | | | T\_SIZE | | | | NUMBER(20,2) | | Y |  |  |  |  | | |
|  | 件支比率 | | | J\_SIZE | | | | NUMBER(20,2) | | Y |  |  |  |  | | |
|  | 万支支比率 | | | W\_SIZE | | | | NUMBER(20,2) | | Y |  |  |  |  | | |
|  | 条支比率 | | | X\_SIZE | | | | NUMBER(20,2) | | Y |  |  |  |  | | |
|  | 件支比率 | | | WEIGHT | | | | NUMBER(20,2) | | Y |  |  |  |  | | |
|  | 万支支比率 | | | FULLCOUNT | | | | INTEGER | | Y |  |  |  |  | | |
|  | 10 自动拆垛 0 人工拆垛 | | | CDTYPE | | | | INTEGER | | Y |  |  |  |  | | |
|  | 箱支比率 | | | ISCANSCANCODE | | | | INTEGER | | Y |  |  |  |  | | |
|  | 垛形默认1 | | | DXTYPE | | | | VARCHAR2(20) | | Y |  |  |  |  | | |
|  | 件条 | | | JT\_SIZE | | | | NUMBER(20,2) | | Y |  |  |  |  | | |
|  | 万条 | | | WZ\_SIZE | | | | NUMBER(20,2) | | Y |  |  |  |  | | |
|  | 每件烟重量，以克为单位，用于出库称重 | | | OUTTYPE | | | | INTEGER | | Y |  |  |  |  | | |
| **说明：** | | | | | | | | | | | | | | | | |
| **作者** | | 邓新科 | **修订者** | |  | | **日期** | | 2017-12-08 | | | | | **版本** | 1．0 | |

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| **表名** | T\_WMS\_CUSTOMER | | | 描述 | | 零售户信息表 | | | | | | | | **库名** | | Zoomtel |
| **序号** | **索引名称** | | | **索引关键词** | | | | | | | | | | **唯一** | | **聚族** |
| 01 | ITEM\_PK | | | ID | | | | | | | | | | Y | | N |
| **序号** | **字段名描述** | | | **字段标识** | | | | **类型长度** | | **空** | **主** | **外** | **Def** | **备注** | | |
|  |  | | | ID | | | | VARCHAR2(30) | |  | Y |  |  |  | | |
|  | 43专卖证号 | | | DCNO | | | | VARCHAR2(40) | | Y |  |  |  |  | | |
|  | 所属烟草公司 | | | SHIPPER\_ID | | | | INTEGER | | Y |  |  |  |  | | |
|  | 零售户代码 | | | CODE | | | | NVARCHAR2(20) | |  |  |  |  |  | | |
|  | 简称 | | | SHORTNAME | | | | NVARCHAR2(60) | |  |  |  |  |  | | |
|  | 零售户点名 | | | NAME | | | | NVARCHAR2(60) | | Y |  |  |  |  | | |
|  | 等级 | | | CUSTOMERLEVEL | | | | NVARCHAR2(10) | | Y |  |  |  |  | | |
|  | 业态，国家局统一枚举值 Z：食杂店，B：便利店，S：超市，N：商场，Y：烟酒商店，F：娱乐服务，Q：其他 | | | INDUSTRY | | | | VARCHAR2(2) | | Y |  |  |  |  | | |
|  | 联系地址 | | | CONTACTADDRESS | | | | NVARCHAR2(200) | | Y |  |  |  |  | | |
|  | 邮编 | | | ZIPCODE | | | | NVARCHAR2(10) | | Y |  |  |  |  | | |
|  | 联系电话 | | | CONTACTPHONE | | | | NVARCHAR2(30) | | Y |  |  |  |  | | |
|  | 备用电话 | | | BAKPHONE | | | | NVARCHAR2(30) | | Y |  |  |  |  | | |
|  | 联系人 | | | CONTACT | | | | NVARCHAR2(50) | | Y |  |  |  |  | | |
|  | 传真 | | | FAXNO | | | | NVARCHAR2(30) | | Y |  |  |  |  | | |
|  | 网址 | | | WEBSITE | | | | NVARCHAR2(50) | | Y |  |  |  |  | | |
|  | 邮箱 | | | EMAIL | | | | NVARCHAR2(50) | | Y |  |  |  |  | | |
|  | 账户 | | | ACCOUNT | | | | NVARCHAR2(50) | | Y |  |  |  |  | | |
|  | 备注(43) | | | REMARKS | | | | NVARCHAR2(500) | | Y |  |  |  |  | | |
|  | 记录时间 | | | CREATETIME | | | | DATE | | Y |  |  |  |  | | |
|  | 记录人 | | | CREATEUSER | | | | NVARCHAR2(20) | | Y |  |  |  |  | | |
|  | 修改时间 | | | MODIFYTIME | | | | DATE | | Y |  |  |  |  | | |
|  | 修改人 | | | MODIFYUSER | | | | NVARCHAR2(20) | | Y |  |  |  |  | | |
|  | 10为正常,0为删除 | | | DELSTATUS | | | | INTEGER | | Y |  |  |  |  | | |
|  | 10普通发票 20增值税票，和invoiceflag配合使用 | | | BILLTYPE | | | | VARCHAR2(2) | | Y |  |  |  |  | | |
|  | 车组CODE | | | ROUTECODE | | | | VARCHAR2(20) | | Y |  |  |  |  | | |
|  | 送货顺序(营销送货顺序) | | | DELIVERYSEQ | | | | NUMBER | | Y |  |  |  |  | | |
|  | 备用顺序 | | | BAKSEQ | | | | NUMBER | | Y |  |  |  |  | | |
|  | 客户经理名称 | | | MANAGERNAME | | | | VARCHAR2(10) | | Y |  |  |  |  | | |
|  | 客户经理电话 | | | MANAGERTEL | | | | VARCHAR2(20) | | Y |  |  |  |  | | |
|  | 送货顺序(本地调整顺序) | | | ADDRESSSEQ | | | | INTEGER | | Y |  |  |  |  | | |
|  | 维度 | | | LAT | | | | VARCHAR2(20) | | Y |  |  |  |  | | |
|  | 经度 | | | LNG | | | | VARCHAR2(20) | | Y |  |  |  |  | | |
|  | 店名图片 | | | IMG | | | | VARCHAR2(40) | | Y |  |  |  |  | | |
|  | 订货批次： 51，52，。。 | | | ORDERBATCH | | | | VARCHAR2(10) | | Y |  |  |  |  | | |
|  | 发票客户 0:无需发票 1：发票客户 | | | INVOICEFLAG | | | | VARCHAR2(2) | | Y |  |  |  |  | | |
|  | 预付款客户 0：非 1：预付款客户 | | | PREPAYFLAG | | | | VARCHAR2(2) | | Y |  |  |  |  | | |
|  | 预付款客户上级ID | | | PREPAYPARENTID | | | | VARCHAR2(20) | | Y |  |  |  |  | | |
|  | 客户类型 1：普通客户 2：预付款一级客户 | | | CUSTOMERTYPE | | | | VARCHAR2(2) | | Y |  |  |  |  | | |
|  | 描点状态:已描点未描点 | | | DRAWSTATUS | | | | VARCHAR2(20) | | Y |  |  |  |  | | |
| **说明：** | | | | | | | | | | | | | | | | |
| **作者** | | 邓新科 | **修订者** | |  | | **日期** | | 2017-12-08 | | | | | **版本** | 1．0 | |

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| **表名** | T\_WMS\_SHIPORDER | | | **描述** | | 订单表 | | | | | | | | | **库名** | | | Zoomtel |
| **序号** | **索引名称** | | | **索引关键词** | | | | | | | | | | | **唯一** | | **聚族** | |
| 01 | pk\_t\_roderlin | | | billcode | | | | | | | | | | | Y | | Y | |
| **序号** | **域名描述** | | | **域标识** | | | | **类型长度** | | **空** | **主** | **外** | **Def** | | **备注** | | | |
| 01 |  | | | ORDERNO | | | | VARCHAR2(80) | |  | Y |  |  | |  | | | |
| 02 | 所属市公司 | | | ORG\_CODE | | | | NVARCHAR2(40) | |  |  |  |  | |  | | | |
| 03 | 存放中间表中订单号 | | | SHIPORDERNO | | | | VARCHAR2(80) | |  |  |  |  | |  | | | |
| 04 | 25卷烟订单，50三方订单 | | | BUSINESSTYPE\_ID | | | | INTEGER | |  |  |  |  | |  | | | |
| 05 | 货主id | | | SHIPPER\_ID | | | | INTEGER | |  |  |  |  | |  | | | |
| 06 | 零售户id | | | CUSTOMER\_ID | | | | VARCHAR2(30) | |  |  |  |  | |  | | | |
| 07 |  | | | WAREHOUSEID | | | | INTEGER | |  |  |  |  | |  | | | |
| 08 | 零售户地址 | | | REALSHIPADDRESS | | | | NVARCHAR2(200) | |  |  |  |  | |  | | | |
| 09 | 联系人 | | | REALADDRESSCONTACT | | | | NVARCHAR2(50) | |  |  |  |  | |  | | | |
|  | 电话 | | | REALSHIPADDRESSPHONE | | | | NVARCHAR2(30) | |  |  |  |  | |  | | | |
|  | 订单行数 | | | ORDERLINES | | | | INTEGER | |  |  |  |  | |  | | | |
|  | 总金额 | | | TOTALAMOUNT | | | | NUMBER(16,6) | |  |  |  |  | |  | | | |
|  | 订单日期 | | | ORDERDATE | | | | DATE | |  |  |  |  | |  | | | |
|  | 配送日期 | | | EXPECTEDSHIPDATE | | | | DATE | |  |  |  |  | |  | | | |
|  | 是否加急 | | | ISRUSH | | | | INTEGER | |  |  |  |  | |  | | | |
|  | 0退货 5暂存 10正常 | | | ORDERSTATUS | | | | INTEGER | |  |  |  |  | |  | | | |
|  | 创建时间 | | | CREATETIME | | | | DATE | |  |  |  |  | |  | | | |
|  | 创建人 | | | CREATEUSER | | | | NVARCHAR2(20) | |  |  |  |  | |  | | | |
|  | 送货时间 | | | DELIVERYTIME | | | | DATE | |  |  |  |  | |  | | | |
|  | 状态 10:在用 0:删除 | | | DELSTATUS | | | | INTEGER | |  |  |  |  | |  | | | |
|  | 备注 | | | REMARKS | | | | NVARCHAR2(500) | |  |  |  |  | |  | | | |
|  | 0未结算,10已结算 5预付款 | | | PAYMENTFLAG | | | | INTEGER | |  |  |  |  | |  | | | |
|  | 车组code | | | ROUTECODE | | | | VARCHAR2(20) | |  |  |  |  | |  | | | |
|  | 配送顺序 | | | DELIVERYSEQ | | | | NUMBER | |  |  |  |  | |  | | | |
|  | 订单条数 | | | TOTALQTY | | | | NUMBER(16,6) | |  |  |  |  | |  | | | |
|  | 批次 | | | BATCH | | | | NUMBER | |  |  |  |  | |  | | | |
|  | ‘新增’和‘排程’ | | | SCHEDULESTATUS | | | | VARCHAR2(10) | |  |  |  |  | |  | | | |
|  | 客户名称 | | | CUSTOMERNAME | | | | VARCHAR2(120) | |  |  |  |  | |  | | | |
|  | 备用电话 | | | BAKPHONE | | | | NVARCHAR2(30) | |  |  |  |  | |  | | | |
| **说明：订单数据表** | | | | | | | | | | | | | | | | | | |
| **作者** | | 邓新科 | **修订者** | |  | | **日期** | | 2017-12-11 | | | | | **版本** | | 2．8 | | |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **表名** | t\_wms\_shiporderline | | | **描述** | | 订单明细 | | | | | | | | | **库名** | | | Zoomtel |
| **序号** | **索引名称** | | | **索引关键词** | | | | | | | | | | | **唯一** | | **聚族** | |
| 01 | shiporderline\_orderon | | | Orderno | | | | | | | | | | | Y | | Y | |
| **序号** | **域名描述** | | | **域标识** | | | | **类型长度** | | **空** | **主** | **外** | **Def** | | **备注** | | | |
| 01 | 订单头 | | | ORDERNO | | | | VARCHAR2(80) | |  |  | Y |  | |  | | | |
| 02 | 主键 | | | ID | | | | VARCHAR2(30) | |  | Y |  |  | |  | | | |
| 03 | 品牌id | | | ITEM\_ID | | | | VARCHAR2(30) | |  |  |  |  | |  | | | |
| 04 | 单位id | | | UOM\_ID | | | | INTEGER | |  |  |  |  | |  | | | |
| 05 | 单价 | | | ITEMPRICE | | | | NUMBER(16,6) | |  |  |  |  | |  | | | |
| 06 | 订单数量 | | | QTY | | | | NUMBER(16,6) | |  |  |  |  | |  | | | |
| 07 | 总金额 | | | SALEAMOUNT | | | | NUMBER(16,6) | |  |  |  |  | |  | | | |
| 08 | 10正常 0退货 | | | ORDERSTATUS | | | | NUMBER | |  |  |  |  | |  | | | |
| 09 | 品牌名称 | | | ITEMNAME | | | | VARCHAR2(50) | |  |  |  |  | |  | | | |
| **说明：订单数据明细表** | | | | | | | | | | | | | | | | | | |
| **作者** | | 邓新科 | **修订者** | |  | | **日期** | | 2017-12-11 | | | | | **版本** | | 2．8 | | |

## 分拣订单接收

### 数据来源

1. 调用存储过程P\_PRODUCE\_ORDERRECEIVE，分拣子系统从WMS系统中根据批次查询出订单数据，将订单号先存放至临时表T\_PRODUCE\_ORDERID。
2. 从WMS订单主表T\_WMS\_SHIPORDER 及订单从表T\_WMS\_SHIPORDERLINE表接收订单数据到分拣表T\_PRODUCE\_ORDER和 T\_PRODUCE\_ORDERLINE，
3. 接收完成后，将WMS订单主表T\_WMS\_SHIPORDER中已接收的订单状态更新为排程状态，避免重复接收订单数据。
4. 清空临时表T\_PRODUCE\_ORDERID中的订单号数据。

### 数据检测

分拣子子系统从WMS接收订单数据是以车组为单位进行接收，在订单数据接收到分拣子系统前，会先进行数据检测：

1. 品牌检测：将订单中的品牌数据与通道表T\_PRODUCE\_SORTTROUGH中的品牌进行匹配；是否有卷烟品牌占用多个通道；两组异形烟分别校验是否满足所有品牌分拣，排程前未确定分到那组异形烟分拣线上。如订单数据中有新增品牌，则在通道表中进行品牌新增；如订单数据中无新增品牌，则进行下一步件码检测。
2. 件码检测：品牌检测完成后，将订单中的品牌件码数据与商品表T\_WMS\_ITEM中的品牌件码进行匹配，检测是否有品牌件码没有维护。有品牌件码未维护，进行提示维护品牌件码；没有需维护的品牌件码，则进行下一步批次的检测。
3. 批次：品牌件码检测完成后，进行批次查询。查询不到批次，进行提示要求先进行批次创建；查询到批次，根据批次查出所需接收的订单数据， 放入临时表T\_PRODUCE\_ORDERID中，分拣子系统接收订单数据完成后，将删除临时表中的记录。批次中接收的卷烟品牌都暂定为异形烟。

### 区分正常烟与异形烟

订单数据接收过来后，默认订单中所有卷烟品牌均为异形烟，将订单数据中的卷烟品牌与通道表中88个烟柜中设置的卷烟品牌进行匹配，与88个烟柜通道品牌一致的，通过更改分拣子系统订单从表T\_PRODUCE\_ORDERLINE状态位multiplep=1,更正为正常烟品牌。同时将WMS系统中订单主表T\_WMS\_SHIPORDER中已接收到分拣子系统中的订单数据字段schedulestatus状态更新为’排程'，以便区分已接收的订单数据和未接收的订单数据，防止分拣子系统接收重复数据。最后清空分拣临时表T\_PRODUCE\_ORDERID。

### 数据库设计

#### 表设计

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **表名** | T\_PRODUCE\_SORTTROUGH | | | 描述 | | 通道信息表 | | | | | | | | **库名** | | Zoomtel |
| **序号** | **索引名称** | | | **索引关键词** | | | | | | | | | | **唯一** | | **聚族** |
| 01 | PRIKEY | | | ID | | | | | | | | | | Y | | N |
| **序号** | **字段名描述** | | | **字段标识** | | | | **类型长度** | | **空** | **主** | **外** | **Def** | **备注** | | |
|  | 主键 | | | ID | | | | NUMBER | |  | Y |  |  |  | | |
|  |  | | | LINENUM | | | | VARCHAR2(10) | |  |  |  |  |  | | |
|  | 通道编号 | | | TROUGHNUM | | | | VARCHAR2(30) | |  |  |  |  |  | | |
|  | 通道描述 | | | TROUGHDESC | | | | VARCHAR2(30) | |  |  |  |  |  | | |
|  | 通道容量2,1条，为2说明有2个同品牌的道 | | | ACTCOUNT | | | | INTEGER | |  |  |  |  |  | | |
|  | 通道物理编号 | | | MACHINESEQ | | | | NUMBER | |  |  |  |  |  | | |
|  | 卷烟编码 | | | CIGARETTECODE | | | | VARCHAR2(10) | |  |  |  |  |  | | |
|  | 卷烟名称 | | | CIGARETTENAME | | | | VARCHAR2(30) | |  |  |  |  |  | | |
|  | 0:禁用 10:启用 | | | STATE | | | | VARCHAR2(10) | |  |  |  |  |  | | |
|  | 尾数 | | | MANTISSA | | | | INTEGER | |  |  |  |  |  | | |
|  | 卷烟类型 | | | CIGARETTETYPE | | | | NUMBER | |  |  |  |  |  | | |
|  | 通道关联 | | | REPLENISHLINE | | | | NUMBER | |  |  |  |  |  | | |
|  | 异形烟虚拟容量设置 | | | TRANSPORTATIONLINE | | | | NUMBER | |  |  |  |  |  | | |
|  | 上次尾数 | | | LASTMANTISSA | | | | NUMBER | |  |  |  |  |  | | |
|  | 通道类型 | | | TROUGHTYPE | | | | INTEGER | |  |  |  |  |  | | |
|  | 组次 | | | GROUPNO | | | | INTEGER | |  |  |  |  |  | | |
|  | 阈值 | | | THRESHOLD | | | | INTEGER | |  |  |  |  |  | | |
|  | 立库一次出库数量（件） | | | BOXCOUNT | | | | INTEGER | |  |  |  |  |  | | |
| **说明：通道信息表** | | | | | | | | | | | | | | | | |
| **作者** | | 邓新科 | **修订者** | |  | | **日期** | | 2017-12-08 | | | | | **版本** | 1．0 | |

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| **表名** | T\_PRODUCE\_ORDER | | | **描述** | | 分拣订单主表 | | | | | | | | | **库名** | | | Zoomtel |
| **序号** | **索引名称** | | | **索引关键词** | | | | | | | | | | | **唯一** | | **聚族** | |
| 01 |  | | |  | | | | | | | | | | | Y | | Y | |
| **序号** | **域名描述** | | | **域标识** | | | | **类型长度** | | **空** | **主** | **外** | **Def** | | **备注** | | | |
| 01 |  | | | BILLCODE | | | | int | |  | Y |  |  | |  | | | |
| 02 | 零售商代码 | | | COMPANYCODE | | | | Nvarchar(50) | |  |  |  |  | |  | | | |
| 03 | 零售商名称 | | | COMPANYNAME | | | | Nvarchar(500) | |  |  |  |  | |  | | | |
| 04 | 排程批次 | | | BATCHCODE | | | | Int | |  |  | Y |  | |  | | | |
| 05 | 第几次从shiporder表中接收订单 | | | SYNSEQ | | | | Nvarchar(500) | |  |  |  |  | |  | | | |
| 06 | 订单数量 | | | ORDERQUANTITY | | | | Nvarchar | |  |  |  |  | |  | | | |
| 07 | 订单金额 | | | ORDERMONEY | | | | decimal | |  |  |  |  | |  | | | |
| 08 | 客户代码 | | | CUSTOMERCODE | | | | int | |  |  |  |  | |  | | | |
| 09 | 客户名称 | | | CUSTOMERNAME | | | | int | |  |  |  |  | |  | | | |
| 10 | 地址 | | | ADDRESS | | | | Nvarchar(500) | |  |  |  |  | |  | | | |
| 11 | 联系电话 | | | TELEPHONE | | | | decimal | |  |  |  |  | |  | | | |
| 12 | 根据原始送货顺序在变从1开始递增的顺序 | | | PRIORITY | | | | Nvarchar(500) | |  |  |  |  | |  | | | |
| 13 | 车组 | | | REGIONCODE | | | | int | |  |  | Y |  | |  | | | |
| 14 | 目前写死为'' | | | TASKNUMBERS | | | | Nvarchar(500) | |  |  |  |  | |  | | | |
|  | 目前写死为'' | | | TASKBOXIES | | | |  | |  |  |  |  | |  | | | |
|  | 正常烟排程状态新增/排程 | | | STATE | | | |  | |  |  |  |  | |  | | | |
|  | 送货顺序，系统中原始的送货顺序，有可能顺序跳跃或重复 | | | DEVSEQ | | | |  | |  |  |  |  | |  | | | |
|  | id序列 | | | ID | | | |  | |  |  |  |  | |  | | | |
|  | 创建时间 | | | CREATETIME | | | |  | |  |  |  |  | |  | | | |
|  | 订单日期 | | | ORDERDATE | | | |  | |  |  |  |  | |  | | | |
|  | 异形烟排程状态新增/排程 | | | UNSTATE | | | |  | |  |  |  |  | |  | | | |
| **说明：订单接收表，把订单表中的数据接收过来，存放到该表中** | | | | | | | | | | | | | | | | | | |
| **作者** | | 唐建林 | **修订者** | |  | | **日期** | | 2017-11-13 | | | | | **版本** | | 2．8 | | |

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| **表名** | T\_PRODUCE\_ORDERLINE | | | **描述** | | 分拣订单明细表 | | | | | | | | | **库名** | | | Zoomtel |
| **序号** | **索引名称** | | | **索引关键词** | | | | | | | | | | | **唯一** | | **聚族** | |
| 01 |  | | |  | | | | | | | | | | | Y | | Y | |
| **序号** | **域名描述** | | | **域标识** | | | | **类型长度** | | **空** | **主** | **外** | **Def** | | **备注** | | | |
| 01 |  | | | BILLCODE | | | | int | |  | Y |  |  | |  | | | |
| 02 |  | | | LINENUM | | | | Nvarchar(50) | |  |  |  |  | |  | | | |
| 03 | 品牌代码 | | | CIGARETTECODE | | | | Nvarchar(500) | |  |  |  |  | |  | | | |
| 04 | 品牌名称 | | | CIGARETTENAME | | | | Int | |  |  | Y |  | |  | | | |
| 05 | 数量 | | | QUANTITY | | | | Nvarchar(500) | |  |  |  |  | |  | | | |
| 06 | 价格 | | | PRICE | | | | Nvarchar | |  |  |  |  | |  | | | |
| 07 | 单位 | | | UNIT | | | | decimal | |  |  |  |  | |  | | | |
| 08 | 金额 | | | MOENY | | | | int | |  |  |  |  | |  | | | |
| 09 | 卷烟分拣类型(非标2分拣1) | | | MULTIPLE | | | | int | |  |  |  |  | |  | | | |
| 10 | 卷烟分拣类型名称（非标，分拣） | | | ALLOWSORT | | | | Nvarchar(500) | |  |  |  |  | |  | | | |
| **说明：订单接收明细表** | | | | | | | | | | | | | | | | | | |
| **作者** | | 邓新科 | **修订者** | |  | | **日期** | | 2017-12-11 | | | | | **版本** | | 2．8 | | |

### 存储过程

P\_PRODUCE\_ORDERRECEIVE

BEGIN

*--检测是否有新增品牌，两组异形烟分别校验是否满足所有品牌分拣，因为排程前不知道分到那组异形烟上*

*--troughtype:分拣通道:10 重力式货架:20 皮带机:30 分拣出口(包装机):40*

*--cigarettetype: 20:标准 88个道 30:异形 96 \*2+6 -1 40:异形烟混合道*

*--groupno: 正常烟柜:1-8组 ,异型烟1-2组 六个异型烟烟柜 3 重力式货架 1-4*

select count(DISTINCT line.item\_id) into v\_itemcount

from t\_wms\_shiporder rr,

t\_wms\_shiporderline line

where

rr.orderno=line.orderno

AND rr.orderdate=TO\_date(p\_time,'yyyy-mm-dd') AND rr.routecode IN(p\_routestr)

and line.item\_id not in (select r.cigarettecode FROM t\_produce\_sorttrough r

where r.cigarettecode is not null and r.state='10' and troughtype=10 and cigarettetype=20

union select r.cigarettecode FROM t\_produce\_sorttrough r

where r.cigarettecode is not null and r.state='10' and troughtype=10 and cigarettetype!=20

and groupno!=2);

if v\_itemcount>0 then

*--取具体品牌和数量*

open List\_itemtype for

select line.itemname,sum(line.qty)

from t\_wms\_shiporder rr,

t\_wms\_shiporderline line

where

rr.orderno=line.orderno

AND rr.orderdate=TO\_date(p\_time,'yyyy-mm-dd') AND rr.routecode IN(p\_routestr)

and line.item\_id not in (select r.cigarettecode FROM t\_produce\_sorttrough r

where r.cigarettecode is not null and r.state='10' and troughtype=10 and cigarettetype=20 *--正常道*

union select r.cigarettecode FROM t\_produce\_sorttrough r

where r.cigarettecode is not null and r.state='10' and troughtype=10 and cigarettetype!=20

and groupno!=2) group by line.ITEMNAME; *--六个道+异形烟组一*

loop

fetch List\_itemtype into tmp\_itemname,tmp\_qty;

exit when List\_itemtype%notfound;

var\_iteminfo:=var\_iteminfo||tmp\_itemname||'('||tmp\_qty||')';

end loop;

close List\_itemtype;

p\_ErrCode:='0';

p\_ErrMsg:=p\_time||'有新增品牌'||var\_iteminfo||',请先更新烟道数据';

rollback;

return;

end if;

*--检测是否有新增品牌*

select count(DISTINCT line.item\_id) into v\_itemcount

from t\_wms\_shiporder rr,

t\_wms\_shiporderline line

where

rr.orderno=line.orderno

AND rr.orderdate=TO\_date(p\_time,'yyyy-mm-dd') AND rr.routecode IN(p\_routestr)

and line.item\_id not in (select r.cigarettecode FROM t\_produce\_sorttrough r

where r.cigarettecode is not null and r.state='10' and troughtype=10 and cigarettetype=20

union select r.cigarettecode FROM t\_produce\_sorttrough r

where r.cigarettecode is not null and r.state='10' and troughtype=10 and cigarettetype!=20

and groupno!=1);*--六个道+异形烟组二*

if v\_itemcount>0 then

*--取具体品牌和数量*

open List\_itemtype for

select line.itemname,sum(line.qty)

from t\_wms\_shiporder rr,

t\_wms\_shiporderline line

where

rr.orderno=line.orderno

AND rr.orderdate=TO\_date(p\_time,'yyyy-mm-dd') AND rr.routecode IN(p\_routestr)

and line.item\_id not in (select r.cigarettecode FROM t\_produce\_sorttrough r

where r.cigarettecode is not null and r.state='10' and troughtype=10 and cigarettetype=20*--正常道*

union select r.cigarettecode FROM t\_produce\_sorttrough r

where r.cigarettecode is not null and r.state='10' and troughtype=10 and cigarettetype!=20*--异形烟和混合道*

and groupno!=1) group by line.ITEMNAME;

loop

fetch List\_itemtype into tmp\_itemname,tmp\_qty;

exit when List\_itemtype%notfound;

var\_iteminfo:=var\_iteminfo||tmp\_itemname||'('||tmp\_qty||')';

end loop;

close List\_itemtype;

p\_ErrCode:='0';

p\_ErrMsg:=p\_time||'有新增品牌(2)'||var\_iteminfo||',请先更新烟道数据';

rollback;

return;

end if;

*--检测是否有品牌件码没有维护，件码预计需要物流自己来维护*

select count(DISTINCT line.item\_id) into v\_itemcount

from t\_wms\_shiporder rr,

t\_wms\_shiporderline line

where

rr.orderno=line.orderno

AND rr.orderdate=TO\_date(p\_time,'yyyy-mm-dd') AND rr.routecode IN(p\_routestr)

and line.item\_id in (select t.itemno FROM t\_wms\_item t where t.bigbox\_bar='111111');

if v\_itemcount>0 then

open List\_itemtype for

select DISTINCT line.itemname

from t\_wms\_shiporder rr,

t\_wms\_shiporderline line

where

rr.orderno=line.orderno

AND rr.orderdate=TO\_date(p\_time,'yyyy-mm-dd') AND rr.routecode IN(p\_routestr)

and line.item\_id in (select t.itemno FROM t\_wms\_item t where t.bigbox\_bar='111111');

loop

fetch List\_itemtype into tmp\_itemname;

exit when List\_itemtype%notfound;

var\_iteminfo:=var\_iteminfo||tmp\_itemname||' ';

end loop;

close List\_itemtype;

p\_ErrCode:='0';

p\_ErrMsg:=p\_time||' '||var\_iteminfo||' 没有维护6位件烟码,请先更新件烟码数据';

rollback;

return;

end if;

*--查询批次*

SELECT MAX(batchcode) INTO Var\_batchcode FROM t\_produce\_batch WHERE state=10 and batchtype=10;

if Var\_batchcode='' or Var\_batchcode is null then

p\_ErrCode:='0';

p\_ErrMsg:='查询不到批次号，接收订单前请先创建批次！';

rollback;

return;

end if;

*--查询同步次数*

*--select decode(max(synseq),'','0',max(synseq))+1 into v\_synseq from highspeed.t\_produce\_order;*

*--查出所需接收的订单,放入道临时表中，接收完成后删除该表记录*

insert into T\_PRODUCE\_ORDERID (orderid)

(

select rr.orderno

from t\_wms\_shiporder rr

where rr.orderdate=TO\_date(p\_time,'yyyy-mm-dd') AND rr.routecode IN(p\_routestr)

and rr.schedulestatus='新增' and rr.orderno not in (select billcode from t\_produce\_order)

);

*--插入订单头*

insert INTO t\_produce\_order

(

ID,BILLCODE,COMPANYCODE,COMPANYNAME,BATCHCODE,SYNSEQ,ORDERQUANTITY,

ORDERMONEY,CUSTOMERCODE,CUSTOMERNAME,ADDRESS,PRIORITY,REGIONCODE,

TASKNUMBERS,TASKBOXIES,STATE,UNSTATE,DEVSEQ,createtime,orderdate

)

(select s\_produce\_order.nextval,t.\* from(

select rr.orderno,rr.shipper\_id,'' as companyname,Var\_batchcode,p\_synseq,totalqty,

0,rr.customer\_id,rr.customername,rr.realshipaddress,rr.deliveryseq,rr.routecode,

'' as tasknumbers,'' as taskboxies,'新增' as state,'新增' as unstate,rr.deliveryseq as devseq,sysdate,rr.orderdate

from

t\_wms\_shiporder rr,

t\_produce\_orderid d

where rr.orderdate=TO\_date(p\_time,'yyyy-mm-dd') AND rr.orderno=d.orderid

*--按订单量排序*

*--order by rr.totalqty desc*

*--按送货顺序排序*

order by rr.deliveryseq,rr.totalqty

) t

);

*--插入订单明细*

*--将所有烟定义为异型烟,再根据88烟柜的烟更正*

INSERT INTO t\_produce\_orderline

(

billcode,linenum,cigarettecode,cigarettename,quantity,price,

unit,moeny,multiple,allowsort

)

(

select line.orderno,line.id,line.item\_id,line.itemname,line.qty,0,

'条',0,2,'非标'

from t\_wms\_shiporderline line,

t\_produce\_orderid d

where line.orderno = d.orderid

);

*--更新订单明细中的非异型烟,不在88个道中间的为异形烟*

open List\_itemtype for

SELECT DISTINCT cigarettecode FROM t\_produce\_sorttrough

WHERE cigarettetype＝20 and state='10' and troughtype=10;*--88个烟柜中的烟*

loop

fetch List\_itemtype into Var\_itemno;

exit when List\_itemtype%notfound;

update t\_produce\_orderline line

set line.multiple=1,line.allowsort='分拣'

where line.cigarettecode=Var\_itemno

AND line.billcode IN (SELECT orderid FROM T\_PRODUCE\_ORDERID);

end loop;

close List\_itemtype;

*--更新excpo表中的已接受订单状态为排程*

UPDATE t\_wms\_shiporder rr SET rr.schedulestatus='排程'

WHERE rr.orderdate=to\_date(p\_time,'yyyy-mm-dd') AND rr.routecode IN (p\_routestr);

*--清空临时表数据*

delete from T\_PRODUCE\_ORDERID;

*--异形烟的数据进排程表*

*--p\_un\_task(p\_ErrCode,p\_ErrMsg);*

*--混合道补烟计划*

*--autoreplenish\_mix(p\_routestr);*

*--第一次接收订单进行预补*

*-- if p\_synseq=1 then*

*-- autoreplenish\_all();*

*-- end if;*

*--更新送货顺序，priority是从1开始递增排序，DEVSEQ还是原来的原始顺序*

open List\_seqinfo for

select rownum as seq,billcode from(

select a.devseq,billcode from t\_produce\_order a where regioncode=p\_routestr order by a.id

);

loop

fetch List\_seqinfo into tmp\_seq,tmp\_billcode;

exit when List\_seqinfo%notfound;

*--更新送货顺序*

update t\_produce\_order r set r.priority=tmp\_seq where r.billcode=tmp\_billcode;

end loop;

close List\_seqinfo;

COMMIT;

p\_ErrCode:='1';

p\_ErrMsg:='订单接收成功！';

RETURN; *--成功*

Exception when others THEN

BEGIN

p\_ErrCode:='0';

p\_ErrMsg:='订单接收失败,具体出错信息：'+sqlerrm;

P\_XT\_HTCCXX(sqlcode,sqlerrm,'P\_PRODUCE\_ORDERRECEIVE');

ROLLBACK;

RETURN;

END;

end;

## 预排程

### 数据校验

调用存储过程P\_PRODUCE\_SCHEDULE按车组进行排程，生成分拣任务。在生成分拣任务前，先要进行数据校验。

校验规则：

1.所有订单品牌都要有对应的分拣通道；

2.正常烟柜中的卷烟品牌不能出现在异型烟分拣通道中；

3.每组异型烟分拣通道中的品牌不能占用两个通道；

4.混合道中的卷烟品牌不能出现在异型烟其他分拣通道中；

5.没有在重力式货架中的卷烟不能出现在正常烟柜中。

### 检测包装机

检测是否有可用的包装机，有可用的包装机，继续下一步骤，无可用的包装机，结束排程。

### 检测皮带机

检测是否有可用的皮带机，有可用的皮带机，继续下一步骤，无可用的皮带机，结束排程。

### 检测主皮带

检测是否有可用的主皮带，有可用的主皮带，设置当前主皮带为1，分配给当前车组，下个车组组则采用当前主皮带的下一个主皮带，并继续下一步骤，无可用的主皮带，结束排程。

### 检查批次

检查是否有批次，有批次，继续下一步骤，无批次，结束排程。

### 更新状态

更新当前整个车组的状态为排程状态，然后继续生成拨烟计划（调用存储过程P\_PRODUCE\_POKE），当前车组正常烟拨烟计划完成后，再对该车组异形烟进行拨烟计划生成（调用存储过程P\_UN\_SCHEDULE）。

## 分拣任务（正常烟、异形烟）

### 正常烟

将正常烟订单数据插入任务表T\_PRODUSE\_TASK、T\_PRODUSE\_TASKLINE表及正常烟分拣任务表T\_PRODUCE\_POKE（调用存储过程P\_PRODUCE\_POKE），同时指定好组次和每个烟柜分拣数量，电控的出口号，主皮带号，包装机号。

### 异形烟

将异形烟订单数据插入任务表T\_UN\_TASK、T\_UN\_TASKLINE表及异形烟分拣任务表T\_UN\_POKE（调用存储过过程P\_UN\_SCHEDULE），同时指定好组次和每个烟柜分拣数量，电控的出口号，主皮带号，包装机号。

### 大品牌排程优化

方案一：分拣优先

分拣优先是指以提升分拣效率为目的，对分拣机械手抓取次数进行优化。先计算当前订单每组烟柜除芙蓉王、精白沙外其它品牌的抓烟次数；计算当前订单芙蓉王、精白沙的抓烟次数及尾数；查询当前芙蓉王可用通道有几个；比较可用通道和抓取次数，选比较小为循环次数，用抓取次数除以循环次数向上取整，然后分配给抓烟次数最少的那组芙蓉王可用烟柜，并将抓取次数、条烟数、烟柜号等信息记入临时表，再以剩下的抓取次数除以剩下的循环次数向上取整，再次分配给抓烟次数最少的那组芙蓉王可用烟柜，循环将一个订单的芙蓉王进行分配，以平衡各组烟柜的抓烟次数。芙蓉王分完成后，再分配精白沙，分配方式与芙蓉王相同，唯一不同的是选最少吸烟次数的组的时候要加上分配的芙蓉王的次数和量。最后分配完成，8组通道的抓烟数量尽可能达到平均及最少。

方案二：合流优先

合流优先是指以提升合流机械手（十条一抓）效率为目的，对合流机械手的抓取次数进行优化。先计算当前订单每组烟柜除芙蓉王、精白沙外其它品牌的条烟数量；计算当前订单芙蓉王、精白沙的条烟总数量；查询当前芙蓉王、精白沙可用通道有几个； 根据可用通道将芙蓉王及精白沙数量进行分配，先将每组通道除芙蓉王及精白沙外其它品牌的条烟合计数量用芙蓉王进行补整，再将当前订单中剩余的芙蓉王及精白沙的数量除十得到抓取次数及尾数，比较可用通道和抓取次数，选比较小为循环次数，用抓取次数除以循环次数向上取整，然后分配给抓烟次数最少的那组芙蓉王可用烟柜，抓取次数、条烟数、烟柜号等信息记入临时表，再以剩下的抓取次数除以未分配的通道数向上取整，再次分配给抓烟次数最少的那组烟柜，循环将一个订单的芙蓉王分配进行分配。芙蓉王分完成后，再分配精白沙，分配方式与芙蓉王相同，唯一不同的是选最少吸烟次数的组的时候要加上分配的芙蓉王的次数和量。最后分配完成，8组通道在合流处的抓烟数量尽可能达到平均及最少。

### 自动合单

在生成分拣任务时，为了减少机械手抓取次数及提高分拣效率，会对符合规则的订单进行合单操作（调用存储过程P\_PRODUCE\_ORDERUNION）。顾名思义，就是将几个订单中同品牌的条烟数量合并到一起，发给分拣机械手，让机械手能每次抓取条烟的数量为最接近或等于机械手抓烟最大值（机械手抓烟最大值为10条），使机械手尽可能的减少抓烟次数，以提高分拣效率。同时计算出合单后每个订单的初始放烟位置，发送给预分拣电控，告诉分拣机械手合单后的每个订单从第几号位置开始放烟。

### 合单规则

1. 合单数量为10：最多在10个订单内进行合单，不会将合单的订单数超过10个，哪怕10个订单合并后条烟数量不够10条；
2. 大于10的不变：在订单中，如果某个品牌的数量大于10条，将不会对该品牌进行合单操作；
3. 订单不拆分：不能将同一个订单的品牌条烟数量，分别拆分到2个合单任务中。

### 数据库设计

#### 表设计

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **表名** | T\_PRODUCE\_TASK | | | 描述 | | 正常烟任务表 | | | | | | | | **库名** | | Iform |
| **序号** | **索引名称** | | | **索引关键词** | | | | | | | | | | **唯一** | | **聚族** |
| 01 | PK\_T\_TASK | | | TASKNUM | | | | | | | | | | Y | | N |
| **序号** | **字段名描述** | | | **字段标识** | | | | **类型长度** | | **空** | **主** | **外** | **Def** | **备注** | | |
|  | 任务号 | | | TASKNUM | | | | NUMBER | |  | Y |  |  |  | | |
|  |  | | | LINENUM | | | | VARCHAR2(10) | |  |  |  |  |  | | |
|  | 车组编号 | | | REGIONCODE | | | | VARCHAR2(20) | | Y |  |  |  |  | | |
|  | 车组名称 | | | REGIONDESC | | | | VARCHAR2(30) | | Y |  |  |  |  | | |
|  | 订单号 | | | BILLCODE | | | | VARCHAR2(30) | | Y |  |  |  |  | | |
|  | 公司编码 | | | COMPANYCODE | | | | VARCHAR2(10) | | Y |  |  |  |  | | |
|  | 公司名称 | | | COMPANYNAME | | | | VARCHAR2(20) | | Y |  |  |  |  | | |
|  | 批次号 | | | BATCHCODE | | | | VARCHAR2(12) | | Y |  |  |  |  | | |
|  | 接收次序号 | | | SYNSEQ | | | | INTEGER | | Y |  |  |  |  | | |
|  | 零售户专卖证号 | | | CUSTOMERCODE | | | | VARCHAR2(20) | | Y |  |  |  |  | | |
|  | 订单数量 | | | ORDERQUANTITY | | | | NUMBER(10,2) | | Y |  |  |  |  | | |
|  | 客户名称 | | | CUSTOMERNAME | | | | VARCHAR2(200) | | Y |  |  |  |  | | |
|  | 订单金额 | | | ORDERMONEY | | | | NUMBER(8,2) | | Y |  |  |  |  | | |
|  | 任务数量 | | | TASKQUANTITY | | | | NUMBER(10,2) | | Y |  |  |  |  | | |
|  |  | | | CAPACITY | | | | NUMBER(10,2) | | Y |  |  |  | 暂无使用 | | |
|  | 优先级 | | | PRIORITY | | | | NUMBER(8) | | Y |  |  |  |  | | |
|  | 箱数 | | | TASKBOX | | | | VARCHAR2(20) | | Y |  |  |  |  | | |
|  | 包装类型 | | | PACKAGEID | | | | VARCHAR2(10) | | Y |  |  |  |  | | |
|  | 包装描叙 | | | PACKAGEDESC | | | | VARCHAR2(20) | | Y |  |  |  |  | | |
|  | 排序号 | | | SORTSEQ | | | | NUMBER | | Y |  |  |  |  | | |
|  |  | | | LABLENUM | | | | VARCHAR2(20) | | Y |  |  |  | 暂无使用 | | |
|  | 计划日期 | | | PLANTIME | | | | DATE | | Y |  |  |  |  | | |
|  | 分拣时间 | | | SORTTIME | | | | DATE | | Y |  |  |  |  | | |
|  | 结束时间 | | | FINISHTIME | | | | DATE | | Y |  |  |  |  | | |
|  | 状态 | | | STATE | | | | VARCHAR2(20) | | Y |  |  |  | 0:新增；10:为生成poke，15sortnum指定完毕 20:正在分拣 30:完成 | | |
|  |  | | | LABELBATCH | | | | NUMBER(3) | | Y |  |  |  | 暂时未使用 | | |
|  | 托盘号 | | | PALLETNUM | | | | NUMBER | | Y |  |  |  |  | | |
|  | 主皮带号 | | | MAINBELT | | | | NUMBER | | Y |  |  |  |  | | |
|  | 包装机编号 | | | PACKAGEMACHINE | | | | INTEGER | | Y |  |  |  |  | | |
|  | 分拣排序 | | | SORTNUM | | | | INTEGER | | Y |  |  |  |  | | |
| **说明：正常烟任务表** | | | | | | | | | | | | | | | | |
| **作者** | | 唐建林 | **修订者** | |  | | **日期** | | 2017-12-08 | | | | | **版本** | 1．0 | |

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| **表名** | T\_PRODUCE\_TASKLINE | | | **描述** | | 正常烟任务明细表 | | | | | | | | **库名** | | IFORM |
| **序号** | **索引名称** | | | **索引关键词** | | | | | | | | | | **唯一** | | **聚族** |
| 01 | PK\_T\_TASKLINE | | | TASKNUM, CIGARETTECODE | | | | | | | | | | Y | | N |
| **序号** | **字段名描述** | | | **字段标识** | | | | **类型长度** | | **空** | **主** | **外** | **Def** | **备注** | | |
|  | 任务号 | | | TASKNUM | | | | NUMBER | | N | Y |  |  |  | | |
|  | 品牌编码 | | | CIGARETTECODE | | | | VARCHAR2(10) | | N | Y |  |  |  | | |
|  | 品牌名称 | | | CIGARETTENAME | | | | VARCHAR2(30) | | N |  |  |  |  | | |
|  | 数量 | | | QUANTITY | | | | NUMBER(10,1) | | N |  |  |  |  | | |
|  | 单位 | | | UNIT | | | | VARCHAR2(5) | | N |  |  |  |  | | |
|  |  | | | ALLOWSORT | | | | VARCHAR2(4) | | N |  |  |  | 暂时无用 | | |
|  | 排序号 | | | SORTNUM | | | | INTEGER | | N |  |  |  |  | | |
| **说明：正常烟任务明细表** | | | | | | | | | | | | | | | | |
| **作者** | | 唐建林 | **修订者** | |  | | **日期** | | 2017-12-08 | | | | | **版本** | 1．0 | |

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| **表名** | T\_PRODUCE\_POKE | | | **描述** | | 正常烟分拣任务表 | | | | | | | | **库名** | | IFORM |
| **序号** | **索引名称** | | | **索引关键词** | | | | | | | | | | **唯一** | | **聚族** |
| 01 | PK\_PRODUCE\_POKE\_PIKEID | | | POKEID | | | | | | | | | | Y | | N |
| **序号** | **字段名描述** | | | **字段标识** | | | | **类型长度** | | **空** | **主** | **外** | **Def** | **备注** | | |
|  | 拨烟编号 | | | POKEID | | | | int | |  | Y |  |  |  | | |
|  | 烟道编号 | | | TROUGHNUM | | | | VARCHAR2(30) | | Y |  |  |  |  | | |
|  | 放烟数量 | | | POKENUM | | | | NUMBER | | Y |  |  |  |  | | |
|  | 预分拣状态 | | | SORTSTATE | | | | NUMBER | | Y |  |  |  | 0:新增 10:排好序 ,15为发送给分拣电控， 20：完成 | | |
|  | 任务编号 | | | TASKNUM | | | | NUMBER | | Y |  |  |  |  | | |
|  | 任务总量 | | | TASKQTY UDT\_YesNo | | | | NUMBER | | Y |  |  |  |  | | |
|  | 预分拣出口号 | | | EXPORTNUM | | | | VARCHAR2(10) | | Y |  |  |  |  | | |
|  | 物理通道号 | | | MACHINESEQ | | | | NUMBER | | Y |  |  |  |  | | |
|  | 主皮带线 | | | MAINBELT | | | | NUMBER | | Y |  |  |  |  | | |
|  | 八组分拣组 | | | GROUPNO | | | | NUMBER | | Y |  |  |  |  | | |
|  | 放烟位置 | | | POKEPLACE | | | | NUMBER | | Y |  |  |  | 目前暂时为1 | | |
|  | 合流状态 | | | UNIONSTATE | | | | NUMBER | | Y |  |  |  | 0:新增 10:排好序 ,15为发送给分拣电控， 20：完成 | | |
|  | 机械手抓烟状态 | | | MACHINESTATE | | | | NUMBER | | Y |  |  |  | 0:新增 10:排好序 ,15为发送给分拣电控， 20：完成 | | |
|  | 机械手每次抓烟数量 | | | MERAGENUM | | | | NUMBER | | Y |  |  |  |  | | |
|  | 包装机序号 | | | PACKAGEMACHINE | | | | NUMBER | | Y |  |  |  |  | | |
|  | 发送数据更加它来排序 | | | SORTNUM | | | | NUMBER | | Y |  |  |  |  | | |
|  | 订单号 | | | BILLCODE | | | | VARCHAR2(80) | | Y |  |  |  |  | | |
|  | 合流虚拟出库号 | | | UNIONEXPORTNUM | | | | VARCHAR2(10) | | Y |  |  |  |  | | |
| **说明：正常烟分拣任务表** | | | | | | | | | | | | | | | | |
| **作者** | | 唐建林 | **修订者** | |  | | **日期** | | 2017-12-08 | | | | | **版本** | 1．0 | |

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| **表名** | T\_UN\_TASK | | | **描述** | | 异形烟任务表 | | | | | | | | | **库名** | | | Zoomtel |
| **序号** | **索引名称** | | | **索引关键词** | | | | | | | | | | | **唯一** | | **聚族** | |
| 01 | PRIUN\_TASKNUM | | | TASKNUM | | | | | | | | | | | Y | | Y | |
| **序号** | **域名描述** | | | **域标识** | | | | **类型长度** | | **空** | **主** | **外** | **Def** | | **备注** | | | |
| 01 | 任务号 | | | TASKNUM | | | | NUMBER | | N | Y |  |  | |  | | | |
| 02 | 异型烟分拣线１，２ | | | LINENUM | | | | VARCHAR2(10) | | N | Y |  |  | |  | | | |
| 03 | 虚拟号备用 | | | EXPORTNUM | | | | VARCHAR2(10) | | Y |  |  |  | |  | | | |
| 04 | 车组code | | | REGIONCODE | | | | VARCHAR2(20) | | Y |  |  |  | |  | | | |
| 05 | 车组描述 | | | REGIONDESC | | | | VARCHAR2(30) | | Y |  |  |  | |  | | | |
| 06 | 订单号 | | | BILLCODE | | | | VARCHAR2(80) | | Y |  |  |  | |  | | | |
| 07 | 公司编码 | | | COMPANYCODE | | | | VARCHAR2(10) | | Y |  |  |  | | 备用 | | | |
| 08 | 公司名称 | | | COMPANYNAME | | | | VARCHAR2(20) | | Y |  |  |  | | 备用 | | | |
| 09 | 批次 | | | BATCHCODE | | | | VARCHAR2(12) | | Y |  |  |  | |  | | | |
| 10 | 接收批次 | | | SYNSEQ | | | | INTEGER | | Y |  |  |  | |  | | | |
| 11 | 客户编码 | | | CUSTOMERCODE | | | | VARCHAR2(20) | | Y |  |  |  | |  | | | |
| 12 | 订单数量 | | | ORDERQUANTITY | | | | NUMBER(10,2) | | Y |  |  |  | |  | | | |
| 13 | 客户名称 | | | CUSTOMERNAME | | | | VARCHAR2(200) | | Y |  |  |  | |  | | | |
| 14 | 订单金额 | | | ORDERMONEY | | | | NUMBER(8,2) | | Y |  |  |  | |  | | | |
| 15 | 任务数量 | | | TASKQUANTITY | | | | NUMBER(10,2) | | Y |  |  |  | |  | | | |
| 16 | 优先级 | | | PRIORITY | | | | NUMBER(8) | | Y |  |  |  | |  | | | |
| 17 | 箱数 | | | TASKBOX | | | | VARCHAR2(20) | | Y |  |  |  | | 备用 | | | |
| 18 | 排序 | | | SORTSEQ | | | | NUMBER | | Y |  |  |  | |  | | | |
| 19 |  | | | LABLENUM | | | | VARCHAR2(20) | | Y |  |  |  | | 备用 | | | |
| 20 | 计划时间 | | | PLANTIME | | | | DATE | | Y |  |  |  | |  | | | |
| 21 | 分拣时间 | | | SORTTIME | | | | DATE | | Y |  |  |  | |  | | | |
| 22 | 结束时间 | | | FINISHTIME | | | | DATE | | Y |  |  |  | |  | | | |
| 23 | 标志位 | | | STATE | | | | VARCHAR2(20) | | Y |  |  |  | | 10 新增 20 排程 30完成 | | | |
| 24 |  | | | LABELBATCH | | | | NUMBER(3) | | Y |  |  |  | |  | | | |
| 25 |  | | | PALLETNUM | | | | NUMBER | | Y |  |  |  | |  | | | |
| 26 |  | | | EXISTRCD | | | | NUMBER | | Y |  |  |  | |  | | | |
| 27 | 订单日期 | | | ORDERDATE | | | | DATE | | Y |  |  |  | |  | | | |
| 28 | 主皮带号 | | | MAINBELT | | | | NUMBER | | Y |  |  |  | |  | | | |
| 29 | 包装机号 | | | PACKAGEMACHINE | | | | INTEGER | | Y |  |  |  | |  | | | |
| 30 | 第一排序号 | | | SORTNUM | | | | INTEGER | | Y |  |  |  | |  | | | |
| 31 | 第二排序号 | | | SECSORTNUM | | | | INTEGER | | Y |  |  |  | |  | | | |
| **说明：异形烟任务表** | | | | | | | | | | | | | | | | | | |
| **作者** | | 邓新科 | **修订者** | |  | | **日期** | | 2017-12-11 | | | | | **版本** | | 2．8 | | |

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| **表名** | T\_UN\_TASKLINE | | | **描述** | | 异形烟任务明细表 | | | | | | | | | **库名** | | | Zoomtel |
| **序号** | **索引名称** | | | **索引关键词** | | | | | | | | | | | **唯一** | | **聚族** | |
| 01 | PRI\_TASKLINE\_TASKNUMC | | |  | | | | | | | | | | | N | | Y | |
| **序号** | **域名描述** | | | **域标识** | | | | **类型长度** | | **空** | **主** | **外** | **Def** | | **备注** | | | |
| 01 | 任务号 | | | TASKNUM | | | | NUMBER | |  |  | Y |  | |  | | | |
| 02 | 卷烟代码 | | | CIGARETTECODE | | | | VARCHAR2(10) | |  | Y |  |  | |  | | | |
| 03 | 卷烟名称 | | | CIGARETTENAME | | | | VARCHAR2(30) | |  |  |  |  | |  | | | |
| 04 | 数量 | | | QUANTITY | | | | NUMBER(10,1) | |  |  |  |  | |  | | | |
| 05 | 单位 | | | UNIT | | | | VARCHAR2(5) | |  |  |  |  | |  | | | |
| 06 |  | | | ALLOWSORT | | | | VARCHAR2(4) | |  |  |  |  | |  | | | |
| **说明：异形烟任务明细表** | | | | | | | | | | | | | | | | | | |
| **作者** | | 唐建林 | **修订者** | |  | | **日期** | | 2017-12-11 | | | | | **版本** | | 2．8 | | |

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| **表名** | T\_UN\_POKE | | | **描述** | | 异形烟分拣任务表 | | | | | | | | | **库名** | | | Zoomtel |
| **序号** | **索引名称** | | | **索引关键词** | | | | | | | | | | | **唯一** | | **聚族** | |
| 01 | PRIUNPOKEID | | | POKEID | | | | | | | | | | | Y | | Y | |
| **序号** | **域名描述** | | | **域标识** | | | | **类型长度** | | **空** | **主** | **外** | **Def** | | **备注** | | | |
| 01 |  | | | POKEID | | | | NUMBER | |  |  | Y |  | |  | | | |
| 02 | 通道号 | | | TROUGHNUM | | | | VARCHAR2(30) | |  | Y |  |  | |  | | | |
| 03 | 拨烟数量 | | | POKENUM | | | | NUMBER | |  |  |  |  | |  | | | |
| 04 | 状态 | | | STATUS | | | | NUMBER | |  |  |  |  | |  | | | |
| 05 | 任务号 | | | TASKNUM | | | | NUMBER | |  |  |  |  | |  | | | |
| 06 | 任务数量 | | | TASKQTY | | | | NUMBER | |  |  |  |  | |  | | | |
| 07 | 包装机 | | | PACKAGEMACHINE | | | | INTEGER | |  |  |  |  | |  | | | |
| 08 | 物理通道号 | | | MACHINESEQ | | | | NUMBER | |  |  |  |  | |  | | | |
| 09 | 异型烟分拣线１，２ | | | LINENUM | | | | VARCHAR2(10) | |  |  |  |  | |  | | | |
| 10 | 卷烟代码 | | | CIGARETTECODE | | | | VARCHAR2(20) | |  |  |  |  | |  | | | |
| 11 | 客户编码 | | | CUSTOMERCODE | | | | VARCHAR2(20) | |  |  |  |  | |  | | | |
| 12 | 排序 | | | SORTNUM | | | | INTEGER | |  |  |  |  | |  | | | |
| 13 | 第二排序，用于只有异形订单的排序 | | | SECSORTNUM | | | | INTEGER | |  |  |  |  | |  | | | |
| 14 | 订单号 | | | BILLCODE | | | | VARCHAR2(80) | |  |  |  |  | |  | | | |
| **说明：异形烟分拣任务表** | | | | | | | | | | | | | | | | | | |
| **作者** | | 邓新科 | **修订者** | |  | | **日期** | | 2017-12-11 | | | | | **版本** | | 2．8 | | |

### 存储过程

P\_PRODUCE\_SCHEDULE

BEGIN

*--troughtype:分拣通道:10 重力式货架:20 皮带机:30 分拣出口(包装机):40*

*--cigarettetype: 20:标准 88个道 30:异形 96 \*2+6 -1 40:异形烟混合道*

*--groupno: 正常烟柜:1-8组 ,异型烟1-2组 六个异型烟烟柜 3 重力式货架 1-4*

p\_ErrCode:='1';

*--异形烟品牌是否占完多个通道*

open List\_ErrInfo for

select trim(cigarettename),count(\*) ct

from t\_produce\_sorttrough h

where h.state='10' and h.cigarettetype!=20 and h.troughtype=10 and groupno!=2*--第一组异形烟+6烟柜*

group by trim(h.cigarettename) having count(\*)>1;

loop

fetch List\_ErrInfo into tmp\_itemname,tmp\_count;

exit when List\_ErrInfo%notfound;

temp\_ErrInfo:=temp\_ErrInfo||tmp\_itemname||'('||tmp\_count||')';

p\_ErrCode:='0';

p\_ErrMsg:='品牌'||temp\_ErrInfo||'在第一组异形烟中占用了多个通道!';

rollback;

return;

end loop;

close List\_ErrInfo;

*--第二组*

open List\_ErrInfo for

select trim(cigarettename),count(\*) ct

from t\_produce\_sorttrough h

where h.state='10' and h.cigarettetype!=20 and h.troughtype=10 and groupno!=1

group by trim(h.cigarettename) having count(\*)>1;

loop

fetch List\_ErrInfo into tmp\_itemname,tmp\_count;

exit when List\_ErrInfo%notfound;

temp\_ErrInfo:=temp\_ErrInfo||tmp\_itemname||'('||tmp\_count||')';

p\_ErrCode:='0';

p\_ErrMsg:='品牌'||temp\_ErrInfo||'在第二组异形烟中占用了多个通道!';

rollback;

return;

end loop;

close List\_ErrInfo;

open List\_ErrInfo for

*--正常烟和异形烟设置成都有*

select cigarettename from t\_produce\_sorttrough s

where s.troughtype=10 and s.cigarettetype=20 and s.state='10'

and trim(s.cigarettename) in (select trim(cigarettename) from t\_produce\_sorttrough st

where st.troughtype=10 and st.cigarettetype!=20 and st.state='10' );

loop

fetch List\_ErrInfo into tmp\_itemname;

exit when List\_ErrInfo%notfound;

temp\_ErrInfo:=temp\_ErrInfo||tmp\_itemname;

p\_ErrCode:='0';

p\_ErrMsg:='品牌'||temp\_ErrInfo||'同时存在于正常道与异型烟道!';

rollback;

return;

end loop;

close List\_ErrInfo;

*--检查是否有可用包装机*

select count(\*) into tmp\_count

from t\_produce\_sorttrough h

where h.state='10' and h.troughtype=40;

if tmp\_count=0 then

p\_ErrCode:='0';

p\_ErrMsg:='无可用的包装机';

return;

end if ;

*--检查是否有可用主皮带*

select count(\*) into tmp\_count

from t\_produce\_sorttrough h

where h.state='10' and h.troughtype=30;

if tmp\_count=0 then

p\_ErrCode:='0';

p\_ErrMsg:='无可用的主皮带';

return;

end if ;

*--检查是否有主皮带对应的两个包装机禁用了，但主皮带没有禁用，目前不允许这种设置*

open List\_ErrInfo for

select groupno from t\_produce\_sorttrough s where s.state='10' and s.troughtype=30;

loop

fetch List\_ErrInfo into temp\_groupno;

exit when List\_ErrInfo%notfound;

select count(\*) into tmp\_count

from t\_produce\_sorttrough s

where s.troughtype=40 and state='10' and s.replenishline=temp\_groupno;

if tmp\_count =0 then

temp\_ErrInfo:=temp\_ErrInfo||temp\_groupno||',';

p\_ErrCode:='0';

end if;

end loop;

close List\_ErrInfo;

if p\_ErrCode='0' then

p\_ErrMsg:='主皮带'||temp\_ErrInfo||'设置为正常，但包装机不可用';

rollback;

return;

end if;

*/\* --先不校验重力式货架和烟柜对应*

*--检查重力式货架是否和烟柜对应，烟柜中的烟在重力式货架中必须有,重力式组1对应烟柜组1,2，2-3,4，3-5,6，4-7,8*

*open List\_troughtype for*

*--烟柜中的烟在对应的重力式货架中都应该有*

*select distinct groupno from t\_produce\_sorttrough s where s.state='10' and s.troughtype=20;*

*loop*

*fetch List\_troughtype into temp\_groupno;*

*exit when List\_troughtype%notfound;*

*open List\_ErrInfo for*

*select cigarettename from t\_produce\_sorttrough s*

*where s.troughtype=10 and s.cigarettetype=20 and state='10' and s.replenishline=temp\_groupno*

*and s.cigarettecode not in (select cigarettecode from t\_produce\_sorttrough st*

*where st.troughtype=20 and st.state='10' and st.groupno=temp\_groupno );*

*loop*

*fetch List\_ErrInfo into tmp\_itemname;*

*exit when List\_ErrInfo%notfound;*

*temp\_ErrInfo:=temp\_ErrInfo||tmp\_itemname;*

*p\_ErrCode:='0';*

*end loop;*

*close List\_ErrInfo;*

*end loop;*

*close List\_troughtype;*

*if p\_ErrCode='0' then*

*p\_ErrMsg:='品牌'||temp\_ErrInfo||'在对应的重力式货架中找不到相应品牌';*

*rollback;*

*return;*

*end if;*

*\*/*

*--------------------------------------------------------------------------------------------------------------------*

*--取最新批次*

SELECT MAX(batchcode) INTO Var\_batchcode FROM t\_produce\_batch WHERE state=10 and batchtype=10;*--正常烟各自创建批次*

*--取最大分拣顺序*

select decode(max(priority),'',0,max(priority)) into temp\_seq from t\_produce\_task;

*--temp\_seq:=0;*

*--取主皮带号*

*--Var\_mainbelt := FUN\_PRODUCE\_GETMAINBELT(p\_code);*

*--上一个车组已经用了的主皮带linenum为1，选出本车组的主皮带（顺着来）。目前暂不考虑两个包装机坏了主皮带也就不能用了*

select count(\*) into tmp\_count from t\_produce\_sorttrough where *--*

troughtype=30 and state='10' and linenum='1';

if tmp\_count=0 then*--初始化的情况下，取最小可用皮带*

select min(machineseq) into Var\_mainbelt from t\_produce\_sorttrough where

troughtype=30 and state='10' and linenum='0';

else

select machineseq into Var\_mainbelt from t\_produce\_sorttrough where

troughtype=30 and state='10' and linenum='1';

tmp\_count:=0;

*--看有没有下一组皮带，没有就需要从头开始，有就下一个，如1皮带的下一组皮带是2，4皮带的下一组皮带是1*

select count(\*) into tmp\_count from t\_produce\_sorttrough where

troughtype=30 and state='10' and machineseq>Var\_mainbelt;

if tmp\_count=0 then

select min(machineseq) into Var\_mainbelt from t\_produce\_sorttrough where

troughtype=30 and state='10' ;

else

select min(machineseq) into Var\_mainbelt from t\_produce\_sorttrough where

troughtype=30 and state='10' and machineseq>Var\_mainbelt;

end if;

end if;

*-- var\_packagemachine:=Var\_mainbelt;*

*/\**

*--初始化出口号和包装机号，根据主皮带算*

*var\_sortmachine:=(Var\_mainbelt-1)\*10+1;*

*select min(machineseq) into var\_packagemachine from t\_produce\_sorttrough where linenum=Var\_mainbelt and troughtype=40 and state=10 ;*

*var\_temppackagemachine:=var\_packagemachine;*

*var\_packagemachine:=(var\_packagemachine-1)\*10+1;*

*var\_groupno:=1;*

*\*/*

*--取包装机号*

*--主皮带已经分配，看本主皮带有几台包装机可用,分配了主皮带至少有一个包装机能用,linenum,replenishline,groupno都可对应主皮带号*

*--包装机号赋值给temp\_spackageno，temp\_lpackageno，s-small对应左边的包装机，l-large对应右边包装机*

select count(1) into tmp\_count from t\_produce\_sorttrough where TROUGHTYPE=40 and state=10 and linenum=Var\_mainbelt;

if tmp\_count >1 then *--两个包装机都可用*

select machineseq into temp\_spackageno

from (select machineseq,rownum as nums from t\_produce\_sorttrough where TROUGHTYPE=40 and state=10 and linenum=Var\_mainbelt order by machineseq) where nums=1;

select machineseq into temp\_lpackageno

from (select machineseq,rownum as numl from t\_produce\_sorttrough where TROUGHTYPE=40 and state=10 and linenum=Var\_mainbelt order by machineseq ) where numl=2;

end if;

if tmp\_count =1 then *--只有一个包装机，赋值相同*

select machineseq into temp\_spackageno

from (select machineseq,rownum as num from t\_produce\_sorttrough where TROUGHTYPE=40 and state=10 and linenum=Var\_mainbelt order by machineseq) where num=1;

temp\_lpackageno := temp\_spackageno;

end if;

temp\_priority :=0;

*--取该车组所有的订单*

open List\_billcode for

*--加上orderline匹配过滤只有异形烟订货的订单*

select distinct a.billcode,a.orderquantity,a.id

from t\_produce\_order a,t\_produce\_orderline b

where a.billcode=b.billcode

and a.regioncode=p\_code and a.state='新增' and b.allowsort='分拣' order by a.id;

loop

fetch List\_billcode into Var\_billcode,Var\_quantity,Var\_seqnum;

exit when List\_billcode%notfound;

*--当前先不考虑太大订单拆分*

SELECT s\_produce\_task.nextval INTO Var\_tasknum FROM dual;

temp\_seq:=temp\_seq+1;*--temp\_seq是按车组顺序跨车组一直排下来*

*--本车组主皮带定好后就考虑包装机的分配，目前规则是一边来包一个订单*

*--根据序号判断出口，序号为单数,则为编号小的包装机,序号为双数,则为编号大的包装机*

temp\_priority :=temp\_priority+1;

if mod(temp\_priority,2)=1 then

temp\_packageno:= temp\_spackageno;

else

temp\_packageno:= temp\_lpackageno;

end if;

*-------------------------------------------------------------------------------------------------------*

*--插入订单头*

insert INTO t\_produce\_task

(*--此时priority是一个超过一个车组的顺序号了，sortseq为车组内的顺序号*

*--此时状态分配为新增0，等sortnum顺序号定好后置为10*

*--exportnum为虚拟出口号，用于和电控交互，暂时未0，在给sortnum赋值时一起赋值*

tasknum,linenum,exportnum,regioncode,regiondesc,billcode,companycode,companyname,

batchcode,synseq,customercode,orderquantity,customername,ordermoney,taskquantity,capacity,

priority,taskbox,sortseq,lablenum,plantime,state,labelbatch,mainbelt,ORDERDATE,packagemachine

)

(select Var\_tasknum,'BS01','0',regioncode,regioncode,a.billcode,a.companycode,a.companyname,

Var\_batchcode,a.synseq,a.customercode,a.orderquantity,a.customername,a.ordermoney,a.orderquantity,

temp\_seq,temp\_seq,a.taskboxies,a.priority,'1-1',sysdate,'0',1,Var\_mainbelt,ORDERDATE,temp\_packageno*--这个a.priority在task表中不一定连续，有只有异型烟的订单*

from

t\_produce\_order a

WHERE state='新增' AND a.billcode=Var\_billcode

);

*--插入任务明细*

INSERT INTO t\_produce\_taskline

(

tasknum,cigarettecode,cigarettename,quantity,unit,allowsort

)

(

select Var\_tasknum,cigarettecode,cigarettename,quantity,unit,allowsort

FROM t\_produce\_orderline line

where billcode=Var\_billcode AND allowsort='分拣'*--排除了异形烟*

);

*--var\_sortmachine:=var\_sortmachine+1;*

*--var\_packagemachine:=var\_packagemachine+1;*

*--更新订单状态，后面对整个车组都设置了状态改变，这里可不更新*

*-- UPDATE t\_produce\_order SET state='排程' WHERE billcode=Var\_billcode;*

*--更新任务单中除掉异形烟后的数量*

UPDATE t\_produce\_task SET taskquantity=

(SELECT SUM(quantity) FROM t\_produce\_taskline WHERE tasknum=Var\_tasknum)

WHERE tasknum=Var\_tasknum;

end loop;

close List\_billcode;

*--设置当前主皮带为1,下个车组则采用当前主皮带的下一个主皮带*

update t\_produce\_sorttrough set linenum='0' where troughtype=30;

update t\_produce\_sorttrough set linenum='1' where troughtype=30 and machineseq=Var\_mainbelt;

*--更新整个车组为排程状态，前面有可能漏掉只有异形烟的订单*

update t\_produce\_order o set o.state='排程' WHERE o.regioncode=p\_code;

*--生成拨烟计划*

p\_produce\_poke(temp\_ErrCode,temp\_ErrMsg);

*--异形烟排程*

P\_UN\_SCHEDULE(p\_code,p\_splitval,Var\_mainbelt,temp\_ErrCode,temp\_ErrMsg);

*--P\_PRODUCE\_UN\_SCHEDULE(p\_code,1,temp\_ErrCode,temp\_ErrMsg);*

COMMIT;

IF(temp\_ErrCode='0')THEN

BEGIN

p\_ErrCode:='0';

p\_ErrMsg:='由于排程计划生成失败,退出排程,后台日志可查看具体出错信息!';

ROLLBACK;

RETURN;

END;

END IF;

p\_ErrCode:='1';

p\_ErrMsg:='排程完成！';

RETURN; *--成功*

Exception when others THEN

BEGIN

p\_ErrCode:='0';

p\_ErrMsg:='排程失败,出错信息：'||sqlerrm;

p\_XT\_HTCCXX(sqlcode,sqlerrm,'P\_PRODUCE\_SCHEDULE');

ROLLBACK;

RETURN;

END;

end;

P\_PRODUCE\_POKE

BEGIN

var\_frw :='1430204';

var\_jbs :='1430105';

*--初始化pokeid，pokeid可以用作拨烟顺序*

SELECT decode(MAX(pokeid),NULL,0,MAX(pokeid)) INTO var\_pokeid FROM t\_produce\_poke;

*--计算好各组中其他烟的数量/吸烟次数等信息，没有就设置为0*

*--最后再分配芙蓉王和精白沙*

*--取任务中卷烟明细*

open lst\_taskinfo FOR

*--未排序前，先按tasknum大小排序，*

select task.tasknum,task.taskquantity from t\_produce\_task task where task.state='0' order by task.tasknum;

loop

fetch lst\_taskinfo into temp\_tasknum,temp\_quantity;*--任务号/任务数量*

exit when lst\_taskinfo%notfound;

*--任务中芙蓉王和精白沙的量*

var\_frwqty := 0;

select count(\*) into temp\_count from t\_produce\_taskline where cigarettecode=var\_frw and tasknum=temp\_tasknum;

if temp\_count>0 then

select quantity into var\_frwqty from t\_produce\_taskline where cigarettecode=var\_frw and tasknum=temp\_tasknum;

end if;

select count(\*) into temp\_count from t\_produce\_taskline where cigarettecode=var\_jbs and tasknum=temp\_tasknum;

var\_jbsqty :=0;

if temp\_count>0 then

select quantity into var\_jbsqty from t\_produce\_taskline where cigarettecode=var\_jbs and tasknum=temp\_tasknum;

end if;

*--取任务发送所需的信息*

select task.exportnum,task.packagemachine,task.mainbelt,task.billcode

into temp\_exportnum,temp\_packagemachine,temp\_mainbelt,temp\_billcode

from t\_produce\_task task where task.tasknum=temp\_tasknum;

*--------------------------------------------------------------------------------------------------------------*

temp\_i :=0;

*--找出可用的分拣通道组*

open lst\_tasklineinfo for

select 0,0,groupno

from t\_produce\_sorttrough st

where st.troughtype=10 and st.cigarettetype=20 and st.state=10

group by st.groupno;

loop

fetch lst\_tasklineinfo into var\_otherqty,var\_othercount,var\_groupno;

exit when lst\_tasklineinfo%notfound;

*--该组大品牌的通道号是否可用*

var\_iffrw:=0;var\_ifjbs :=0;*--初始化*

var\_frwtroughnum:=0;var\_jbstroughnum :=0;

select count(\*) into temp\_count from t\_produce\_sorttrough st where st.groupno=var\_groupno and st.cigarettecode=var\_frw and st.state=10 and st.troughtype=10 and st.cigarettetype=20;

if temp\_count>0 then

select st.state,st.troughnum into var\_iffrw,var\_frwtroughnum

from t\_produce\_sorttrough st where st.groupno=var\_groupno and st.cigarettecode=var\_frw and st.state=10 and st.troughtype=10 and st.cigarettetype=20;

end if;

select count(\*) into temp\_count from t\_produce\_sorttrough st where st.groupno=var\_groupno and st.cigarettecode=var\_jbs and st.state=10 and st.troughtype=10 and st.cigarettetype=20;

if temp\_count>0 then

select st.state,st.troughnum into var\_ifjbs,var\_jbstroughnum

from t\_produce\_sorttrough st where st.groupno=var\_groupno and st.cigarettecode=var\_jbs and st.state=10 and st.troughtype=10 and st.cigarettetype=20;

end if;

*--这里是假设其他品牌每个都只抓一下，实际上有可能超过10条，就需要抓两下，*

*-- select sum(line.quantity),count(\*) into var\_otherqty,var\_othercount--其他品牌数量/其他品牌数*

select decode(sum(line.quantity),null,0,sum(line.quantity)),decode(sum(ceil(line.quantity/10)),null,0,sum(ceil(line.quantity/10))) into var\_otherqty,var\_othercount*--其他品牌数量/其他品牌抓烟次数*

from t\_produce\_taskline line ,t\_produce\_sorttrough st

where line.cigarettecode=st.cigarettecode and line.cigarettecode not in (var\_frw,var\_jbs)

and st.troughtype=10 and st.cigarettetype=20 and st.state=10 and line.tasknum=temp\_tasknum

and st.groupno = var\_groupno;

*--该组没有品牌。有可能订单只有两个大品牌*

if var\_othercount = 0 then

var\_otherqty :=0 ;

end if;

temp\_i :=temp\_i +1;

*--相关信息插入临时表中*

insert into t\_produce\_lineinfo(ID,TASKNUM,TASKQTY,FRWQTY,JBSQTY,OTHERQTY,OTHERCOUNT,GROUPNO,

IFFRW,IFJBS,FRWDISTRUBUTEQTY,JBSDISTRUBUTEQTY,FRWSTATE,JBSSTATE,FRWDISTRUBUTECOUNT,JBSDISTRUBUTECOUNT,

FRWTROUGHNUM,JBSTROUGHNUM)

values

(temp\_i,temp\_tasknum,temp\_quantity,var\_frwqty,var\_jbsqty,var\_otherqty,var\_othercount,var\_groupno,

var\_iffrw,var\_ifjbs,0,0,0,0,0,0,

var\_frwtroughnum,var\_jbstroughnum);

end loop;

close lst\_tasklineinfo;

*-------------------------------------------------------------------------------------------------------*

*--计算芙蓉王有几个十条,剩下几条*

select ceil(var\_frwqty/10),mod(var\_frwqty,10) into var\_frwcount,var\_frwmod from dual;

*--看芙蓉王能分配到几个道上*

select count(\*) into temp\_count from t\_produce\_lineinfo where iffrw=10;*--能用的芙蓉王道*

*--开始给每个通道分配*

*--看是芙蓉王通道多还是芙蓉抓取的次数多,循环比较小的值,最后的一个芙蓉王通道分配剩下的烟,前面的可能是整十条倍数的烟*

*--如芙蓉王只有抓一下的量，那就只能分配到一个通道上，循环一次。没必要每道分几条，如果芙蓉王够抓十下，八组能分，那就循环八次*

whilecount := var\_frwcount;

if temp\_count<var\_frwcount then

whilecount :=temp\_count; *--取抓取次数和可用通道的最小值*

end if;

j:=0;

temp\_bigbrandqty :=var\_frwqty;*--芙蓉王的量赋给一个临时变量，便于后面的计算*

temp\_bigbrandcount := var\_frwcount; *--芙蓉王抓取的次数赋给一个临时变量，便于后面的计算*

temp\_whilecount := whilecount;*--循环次数赋给一个临时变量，便于后面的计算*

while j<whilecount loop

j:=j+1;

*--分配到每组上的次数，每次向上取整，要考虑最后一组是尾数*

temp\_distributecount := ceil(temp\_bigbrandcount/temp\_whilecount);*--需要分配的抓烟次数*

temp\_distributeqty := temp\_distributecount \* 10; *--分配的都是抓一次满十条的,对于最后的一组可能不是整数，最后再处理*

*--循环一次，烟计算剩余量，芙蓉王的抓取次数/数量和通道数量都要减少.*

temp\_bigbrandcount := temp\_bigbrandcount-temp\_distributecount;

temp\_bigbrandqty := temp\_bigbrandqty- temp\_distributeqty;

temp\_whilecount := temp\_whilecount -1;

if temp\_bigbrandqty < 0 then*--说明已经是最后一组了，按十条一次算下来已经是负数了，分配的应该是最后的散条了*

*--就是最后剩下的*

temp\_distributeqty := temp\_bigbrandqty + temp\_distributeqty;

end if;

*--每次取抓烟次数最少的组*

select groupno into temp\_groupno from

(select groupno,rownum from t\_produce\_lineinfo

where iffrw=10 and frwstate=0 order by othercount,otherqty,groupno)

where rownum=1;

*--该组芙蓉王数量计算完毕，frwstate改变*

update t\_produce\_lineinfo o set frwstate=10,o.frwdistrubutecount=temp\_distributecount,o.frwdistrubuteqty=temp\_distributeqty

where groupno= temp\_groupno;

end loop;

*-------------------------------------------------------------------------------------------------------*

*--开始计算精白沙，唯一不同的是选最少吸烟次数的组的时候要加上分配的芙蓉王的次数和量*

*--计算精白沙有几个十条,剩下几条*

select ceil(var\_jbsqty/10),mod(var\_jbsqty,10) into var\_jbscount,var\_jbsmod from dual;

*--看精白沙能分配到几个道上*

select count(\*) into temp\_count from t\_produce\_lineinfo where ifjbs=10;*--能用的精白沙道*

*--开始给每个通道分配*

*--看是精白沙通道多还是精白沙抓取的次数多,循环比较小的值,最后的一个精白沙通道分配剩下的烟,前面的可能是整十条倍数的烟*

*--如精白沙只有抓一下的量，那就只能分配到一个通道上，循环一次。没必要每道分几条，如果精白沙够抓十下，八组能分，那就循环八次*

whilecount := var\_jbscount;

if temp\_count<var\_jbscount then

whilecount :=temp\_count; *--取抓取次数和可用通道的最小值*

end if;

j:=0;

temp\_bigbrandqty :=var\_jbsqty;*--精白沙的量赋给一个临时变量，便于后面的计算*

temp\_bigbrandcount := var\_jbscount; *--精白沙抓取的次数赋给一个临时变量，便于后面的计算*

temp\_whilecount := whilecount;*--循环次数赋给一个临时变量，便于后面的计算*

while j<whilecount loop

j:=j+1;

*--分配到每组上的次数，每次向上取整，要考虑最后一组是尾数*

temp\_distributecount := ceil(temp\_bigbrandcount/temp\_whilecount);*--需要分配的抓烟次数*

temp\_distributeqty := temp\_distributecount \* 10; *--分配的都是抓一次满十条的,对于最后的一组可能不是整数，最后再处理*

*--循环一次，烟计算剩余量，精白沙的抓取次数/数量和通道数量都要减少.*

temp\_bigbrandcount := temp\_bigbrandcount-temp\_distributecount;

temp\_bigbrandqty := temp\_bigbrandqty- temp\_distributeqty;

temp\_whilecount := temp\_whilecount -1;

if temp\_bigbrandqty < 0 then*--说明已经是最后一组了，按十条一次算下来已经是负数了，分配的应该是最后的散条了*

*--就是最后剩下的*

temp\_distributeqty := temp\_bigbrandqty + temp\_distributeqty;

end if;

*--每次取抓烟次数最少的组*

select groupno into temp\_groupno from

(select groupno,rownum from t\_produce\_lineinfo

where ifjbs=10 and jbsstate=0 order by othercount+frwdistrubutecount,otherqty+frwdistrubuteqty,groupno)

where rownum=1;

*--该组精白沙数量计算完毕，jbsstate改变*

update t\_produce\_lineinfo o set jbsstate=10,o.jbsdistrubutecount=temp\_distributecount,o.jbsdistrubuteqty=temp\_distributeqty

where groupno= temp\_groupno;

end loop;

*-------------------------------------------------------------------------------------------------------*

*--两大品牌计算完后，可以将各品牌信息插入poke表中,有可能没有其他烟*

open lst\_tasklineinfo2 FOR

select line.tasknum,st.troughnum,st.machineseq,line.quantity, st.groupno

from t\_produce\_taskline line ,t\_produce\_sorttrough st,t\_produce\_task task

where line.cigarettecode=st.cigarettecode and task.tasknum=line.tasknum

and line.cigarettecode not in (var\_frw,var\_jbs)

and st.troughtype=10 and st.cigarettetype=20 and st.state=10 and task.tasknum = temp\_tasknum

ORDER BY st.troughnum;

loop

fetch lst\_tasklineinfo2 into temp\_tasknum,temp\_troughnum,temp\_machineseq,temp\_pokenum,temp\_groupno;

exit when lst\_tasklineinfo2%notfound;

var\_pokeid:=var\_pokeid+1;

INSERT INTO t\_produce\_poke(pokeid,troughnum,pokenum,machineseq,tasknum,taskqty,groupno,

sortstate,unionstate,machinestate,mainbelt,packagemachine,pokeplace,meragenum,billcode)VALUES

(var\_pokeid,temp\_troughnum,temp\_pokenum,temp\_machineseq,temp\_tasknum,temp\_quantity,temp\_groupno,

0,0,0,temp\_mainbelt,temp\_packagemachine,1,temp\_pokenum,temp\_billcode);

end loop;

close lst\_tasklineinfo2;

*--加入两大品牌，有可能两大品牌都没有，将没有分配两大品牌的组去掉*

delete from t\_produce\_lineinfo o where o.frwdistrubuteqty=0 and o.jbsdistrubuteqty=0;

*--将芙蓉王插入拨烟表中*

open lst\_tasklineinfofrw FOR

select o.frwdistrubuteqty,o.frwtroughnum,o.groupno

from t\_produce\_lineinfo o

where o.frwdistrubuteqty>0;

loop

fetch lst\_tasklineinfofrw into temp\_pokenum,temp\_troughnum,temp\_groupno;

exit when lst\_tasklineinfofrw%notfound;

var\_pokeid:=var\_pokeid+1;

*--取芙蓉王对应的物理通道号*

select machineseq into temp\_machineseq from t\_produce\_sorttrough h where h.troughnum = temp\_troughnum and h.cigarettetype=20 and h.troughtype=10 and h.state='10';

INSERT INTO t\_produce\_poke(pokeid,troughnum,pokenum,machineseq,tasknum,taskqty,groupno,

sortstate,unionstate,machinestate,mainbelt,packagemachine,pokeplace,meragenum,billcode)VALUES

(var\_pokeid,temp\_troughnum,temp\_pokenum,temp\_machineseq,temp\_tasknum,temp\_quantity,temp\_groupno,

0,0,0,temp\_mainbelt,temp\_packagemachine,1,temp\_pokenum,temp\_billcode);

end loop;

close lst\_tasklineinfofrw;

*-------------------------------------------------------------*

*--将精白沙插入拨烟表中*

open lst\_tasklineinfojbs FOR

select o.jbsdistrubuteqty,o.jbstroughnum,o.groupno

from t\_produce\_lineinfo o

where o.jbsdistrubuteqty>0;

loop

fetch lst\_tasklineinfojbs into temp\_pokenum,temp\_troughnum,temp\_groupno;

exit when lst\_tasklineinfojbs%notfound;

var\_pokeid:=var\_pokeid+1;

select machineseq into temp\_machineseq from t\_produce\_sorttrough h where h.troughnum = temp\_troughnum and h.cigarettetype=20 and h.troughtype=10 and h.state='10';

INSERT INTO t\_produce\_poke(pokeid,troughnum,pokenum,machineseq,tasknum,taskqty,groupno,

sortstate,unionstate,machinestate,mainbelt,packagemachine,pokeplace,meragenum,billcode)VALUES

(var\_pokeid,temp\_troughnum,temp\_pokenum,temp\_machineseq,temp\_tasknum,temp\_quantity,temp\_groupno,

0,0,0,temp\_mainbelt,temp\_packagemachine,1,temp\_pokenum,temp\_billcode);*--状态为0，新增，排序改sortnum值后为10，此时已经可以按sortnum排序发送任务了。*

end loop;

close lst\_tasklineinfojbs;

*--删除临时表*

delete from t\_produce\_lineinfo;

*--标示已经分配好了*

UPDATE t\_produce\_task SET state='10' where state='0' and tasknum=temp\_tasknum;

end loop;

close lst\_taskinfo;

p\_ErrCode:='1';

p\_ErrMsg:='拨烟计划完成！';

RETURN; *--成功*

Exception when others THEN

BEGIN

p\_ErrCode:='0';

p\_ErrMsg:='拨烟计划生成失败,具体出错信息!'||sqlerrm;

P\_XT\_HTCCXX(sqlcode,sqlerrm,'P\_PRODUCE\_POKE');

ROLLBACK;

RETURN;

END;

end;

P\_UN\_SCHEDULE

BEGIN

*--本步骤主要是将order表中的数据读到task表和poke表中，并没有对任务顺序进行排序*

*--任务顺序在P\_PRODUCE\_updatesortnum中实现*

*--校验是为了单独排程的时候用，如果是从正常烟排程过来的就不需要校验了*

open List\_ErrInfo for

select trim(h.cigarettename),count(\*)

from t\_produce\_sorttrough h

where h.state=10 and cigarettetype=40 and troughtype=10

group by trim(h.cigarettename),groupno having count(\*)>1;

loop

fetch List\_ErrInfo into tmp\_itemname,tmp\_count;

exit when List\_ErrInfo%notfound;

temp\_ErrInfo:=temp\_ErrInfo||tmp\_itemname||'('||tmp\_count||')';

p\_ErrCode:='0';

p\_ErrMsg:='异型混合道烟'||temp\_ErrInfo||'重复定义了烟道!';

rollback;

return;

end loop;

close List\_ErrInfo;

open List\_ErrInfo for

select trim(cigarettename),count(\*)

from t\_produce\_sorttrough h

where h.state=10 and cigarettetype=30 and troughtype=10

group by trim(h.cigarettename),groupno having count(\*)>1;

loop

fetch List\_ErrInfo into tmp\_itemname,tmp\_count;

exit when List\_ErrInfo%notfound;

temp\_ErrInfo:=temp\_ErrInfo||tmp\_itemname||'('||tmp\_count||')';

p\_ErrCode:='0';

p\_ErrMsg:='异形烟'||temp\_ErrInfo||'重复定义了烟道!';

rollback;

return;

end loop;

close List\_ErrInfo;

SELECT decode(MAX(pokeid),NULL,1,MAX(pokeid)) INTO var\_pokeid FROM t\_un\_poke;

SELECT MAX(batchcode) INTO Var\_batchcode FROM t\_produce\_batch WHERE state=10 and batchtype=20;*--需要创建批次*

select decode(max(priority),'',0,max(priority)) into temp\_seq from t\_un\_task;

*--var\_linenum指分配到哪条异形烟分拣线上去分拣,一二主皮带对第一组异型烟分拣线，三四主皮带对第二组异型烟分拣线*

var\_linenum:=1;

select h.replenishline into var\_linenum from t\_produce\_sorttrough h where h.troughtype=30 and h.machineseq=p\_mainbelt;

*--temp\_seq:=0;*

*/\* select mainbelt into Var\_mainbelt from t\_produce\_routeinfo o where o.routecode= p\_code and o.delstatus=10;*

*if Var\_mainbelt=1 or Var\_mainbelt=2 then*

*var\_linenum:='1';*

*else*

*var\_linenum:='2';*

*end if;\*/*

open List\_billcode for

*--SELECT billcode,orderquantity FROM highspeed.t\_un\_order WHERE state='' AND regioncode=p\_code order by id;*

select a.billcode,sum(b.quantity),a.id,a.orderdate

from t\_produce\_order a,t\_produce\_orderline b where a.billcode=b.billcode *--必须该车组正常烟排完程后，才能排异形烟，不然不知道分到哪一组及包装机号*

and a.regioncode=p\_code and b.allowsort='非标' and a.state='排程' and a.unstate='新增'

group by a.billcode,a.id,a.orderdate order by a.id;

loop

fetch List\_billcode into Var\_billcode,Var\_quantity,Var\_id,var\_ordate;

exit when List\_billcode%notfound;

BEGIN

Var\_existrcd:=1;*--是否在正常烟排程中存在对应的订单*

*--SELECT tasknum,t.exportnum,t.palletnum INTO Var\_tasknum,Var\_exportnum,var\_palletnum FROM t\_produce\_task t where t.billcode=Var\_billcode;*

SELECT count(\*)into tmp\_count FROM t\_produce\_task t where t.billcode=Var\_billcode;

if tmp\_count=0 then *--在正常烟排程中找不到对应的订单（即该订单全部是异形烟）*

SELECT s\_produce\_task.nextval INTO Var\_tasknum FROM dual;*--取新的任务号，如果正常烟盒异形烟任务号相同，包装机会合流*

*--包装机根据住皮带号任意选取一个*

select machineseq into Var\_packageNo from (select machineseq,rownum as num

from t\_produce\_sorttrough where TROUGHTYPE=40 and state=10 and linenum=p\_mainbelt

order by machineseq)

where num=1;

Var\_existrcd:=0;

*/\**

*select decode(palletnum,'',1,palletnum) into var\_palletnum from t\_produce\_task where billcode=*

*(select max(billcode) from t\_produce\_task where billcode<Var\_billcode*

*and billcode not in(select billcode from t\_un\_task t where t.existrcd=0));*

*if var\_palletnum is null then*

*var\_palletnum:=1;*

*end if;*

*\*/*

else

SELECT tasknum,t.packagemachine,t.palletnum

INTO Var\_tasknum,Var\_packageNo,var\_palletnum

FROM t\_produce\_task t where t.billcode=Var\_billcode;

end if;

temp\_seq:=temp\_seq+1;

*--数据插入异形烟任务表中*

insert INTO t\_un\_task

(

tasknum,linenum,exportnum,regioncode,regiondesc,billcode,companycode,companyname,

batchcode,synseq,customercode,orderquantity,customername,ordermoney,taskquantity,orderdate,existrcd,

priority,taskbox,sortseq,lablenum,plantime,state,labelbatch,mainbelt,packagemachine,sortnum,secsortnum

)

(select Var\_tasknum,var\_linenum,Var\_exportnum,regioncode,regioncode,a.billcode,a.companycode,a.companyname,

Var\_batchcode,a.synseq,a.customercode,a.orderquantity,a.customername,a.ordermoney,Var\_quantity,var\_ordate,Var\_existrcd,

temp\_seq,a.taskboxies,a.priority,'1-1',sysdate,'10',1,Var\_mainbelt,Var\_packageNo,0,a.priority

from

t\_produce\_order a

WHERE a.billcode=Var\_billcode

);

select customercode into Var\_customercode from t\_produce\_order WHERE billcode=Var\_billcode;

INSERT INTO t\_un\_taskline

(

tasknum,cigarettecode,cigarettename,quantity,unit,allowsort

)

(

select Var\_tasknum,cigarettecode,cigarettename,quantity,unit,allowsort

FROM t\_produce\_orderline line

where billcode=Var\_billcode AND allowsort='非标'

);

*--------------------------------------------------------------------------------------------------*

*--拆分任务，每条烟是一条记录，到时发送的时候取25条记录发送*

if var\_linenum =1 then *--sort.groupno!=var\_tempgroupno;* var\_tempgroupno:=2;

else

var\_tempgroupno:=1;

end if;

open List\_bill\_linecode for

select line.cigarettecode,line.cigarettename,line.quantity,sort.troughnum,ord.priority

FROM t\_produce\_orderline line ,t\_produce\_sorttrough sort,t\_produce\_order ord

where line.billcode=Var\_billcode and ord.billcode=line.billcode AND allowsort='非标' and line.cigarettecode=sort.cigarettecode and sort.troughtype=10

and cigarettetype!=20 and sort.groupno!=var\_tempgroupno;*--!=20是所有异形烟道，!=2是指第一组，!=1指第二组，因为有六个烟柜组为3*

loop

fetch List\_bill\_linecode into Var\_cigarettecode,Var\_cigarettename,Var\_quantityline,temp\_troughnum,var\_secsortnum;

exit when List\_bill\_linecode%notfound;

while Var\_quantityline!= 0 loop

var\_pokeid:=var\_pokeid+1;

INSERT INTO t\_un\_poke(pokeid,cigarettecode,customercode,troughnum,pokenum,tasknum,

billcode,taskqty,PACKAGEMACHINE,linenum,sortnum,secsortnum)

VALUES

(var\_pokeid,Var\_cigarettecode,Var\_customercode,temp\_troughnum,1,Var\_tasknum,

Var\_billcode,1,Var\_packageNo,var\_linenum,0,var\_secsortnum);

Var\_quantityline:=Var\_quantityline-1;

end loop;

end loop;

close List\_bill\_linecode;

*--更改状态位，不知t\_un\_task是否需要更改状态位，默认是10*

UPDATE t\_produce\_order SET unstate='异形烟排程' WHERE billcode=Var\_billcode;

UPDATE t\_un\_task SET taskquantity=

(SELECT SUM(quantity) FROM t\_un\_taskline WHERE tasknum=Var\_tasknum)

WHERE tasknum=Var\_tasknum;

END;

end loop;

close List\_billcode;

IF(temp\_ErrCode='0')THEN

BEGIN

p\_ErrCode:='0';

p\_ErrMsg:='由于异形烟拨烟计划生成失败,退出排程,后台日志可查看具体出错信息';

ROLLBACK;

RETURN;

END;

END IF;

p\_ErrCode:='1';

p\_ErrMsg:='排程完成';

RETURN;

Exception when others THEN

BEGIN

p\_ErrCode:='0';

p\_ErrMsg:='异形烟排程失败,后台日志可查看具体出错信息!';

P\_XT\_HTCCXX(sqlcode,sqlerrm,'P\_UN\_SCHEDULE');

ROLLBACK;

RETURN;

END;

end;

P\_PRODUCE\_ORDERUNION

BEGIN

var\_bz:=0;

*--设置合单任务范围,表示任务数相隔10,则不合单*

var\_unioncount:=10;

*--按顺序取poke表内的各个通道的数量*

open List\_billcode for

*--取分拣通道号*

select distinct troughnum from t\_produce\_poke order by troughnum;

loop

fetch List\_billcode into var\_troughnum;

exit when List\_billcode%notfound;

var\_pokeindex:=0;

var\_quantity:=0;

*--取当前烟柜最小的未合单的sortnum*

SELECT decode(MIN(sortnum),NULL,0,MIN(sortnum)) INTO var\_firstsortnum FROM t\_produce\_poke

where troughnum=var\_troughnum and uniontasknum is null;

*--取最大合单任务号*

SELECT decode(MAX(uniontasknum),NULL,0,MAX(uniontasknum))+1 INTO var\_uniontasknum FROM t\_produce\_poke;

open List\_pokeinfo for

*--取对应通道的拨烟计划*

select pokeid,tasknum,meragenum,sortnum from t\_produce\_poke where troughnum=var\_troughnum

and uniontasknum is null order by sortnum;

loop

fetch List\_pokeinfo into var\_pokeid,var\_tasknum,var\_meragenum,var\_sortnum;

exit when List\_pokeinfo%notfound;

*--if var\_firstsortnum=0 or var\_firstsortnum is null then*

*-- var\_firstsortnum:=var\_sortnum;*

*--var\_uniontasknum:=var\_uniontasknum+1;*

*--end if;*

*--判断是否超过最大合单数,超过则合单任务结束*

if var\_sortnum-var\_firstsortnum>=var\_unioncount then

*--更新上一个合单任务所有任务的抓取总数*

update t\_produce\_poke set meragenum=var\_quantity where uniontasknum=var\_uniontasknum;

*--var\_bz:=0;*

var\_uniontasknum:=var\_uniontasknum+1;

var\_firstsortnum:=var\_sortnum;

var\_quantity:=var\_meragenum;

var\_place:=1;

var\_pokeindex:=1;

*--tmp\_place:=var\_meragenum+1;*

update t\_produce\_poke set uniontasknum=var\_uniontasknum,pokeplace=var\_place where pokeid=var\_pokeid;

else

*--没有超过最大合单数*

*--抓取数量大于10,则合单任务结束*

if var\_quantity+var\_meragenum>10 then

*--第一个任务抓烟数量就大于10*

if var\_pokeindex=0 then

update t\_produce\_poke set uniontasknum=var\_uniontasknum

*--,meragenum=var\_quantity,pokeplace=var\_place*

where pokeid=var\_pokeid;

var\_uniontasknum:=var\_uniontasknum+1;

var\_firstsortnum:=0;

else

*--更新上一个合单任务所有任务的抓取总数*

update t\_produce\_poke set meragenum=var\_quantity where uniontasknum=var\_uniontasknum;

var\_uniontasknum:=var\_uniontasknum+1;

var\_firstsortnum:=var\_sortnum;

var\_quantity:=var\_meragenum;

var\_place:=1;

update t\_produce\_poke set uniontasknum=var\_uniontasknum

*--,meragenum=var\_quantity,pokeplace=var\_place*

where pokeid=var\_pokeid;

end if;

else

*--第一个任务放烟位置是1开始*

if var\_pokeindex=0 then

var\_place:=1;

else

*--非第一个任务放烟位置是累计条烟数量加1*

var\_place:=var\_quantity+1;

end if;

var\_pokeindex:=var\_pokeindex+1;

var\_quantity:=var\_quantity+var\_meragenum;

update t\_produce\_poke set uniontasknum=var\_uniontasknum,pokeplace=var\_place where pokeid=var\_pokeid;

end if;

end if;

end LOOP;

close List\_pokeinfo;

end LOOP;

close List\_billcode;

commit;

Exception when others THEN

BEGIN

p\_ErrCode:='0';

p\_ErrMsg:='拨烟合单出错,后台日志可查看具体出错信息!';

p\_XT\_HTCCXX(sqlcode,sqlerrm,'P\_PRODUCE\_ORDERUNION');

ROLLBACK;

RETURN;

END;

end;

## 排程（正常烟、异形烟）

### 正常烟排程

调用存储过程P\_PRODUCE\_UPDATESORTNUM，根据车组分配规则给各车组重新排序，理论上是四个车组同时下任务，下任务的顺序如下示例： 任务1：车组1的订单1，任务2：车组2的订单1，任务3：车组3的订单1，任务4：车组4的订单1，任务5：车组1的订单2，任务6：车组2的订单2，以此类推。

为了让到合流前的摇摆尽量少动作，有可能一个车组下2-n个任务，再换到另一个车组，n要根据调试结果来定，结果存到T\_PRODUCE\_TASK 和T\_ PRODUCE \_POKE中的SORTNUM字段中，作为发送给电控的任务顺序。

### 异形烟排程

调用存储过程P\_PRODUCE\_UPDATESORTNUM,与正常烟排程相同，结果存到T\_UN\_TASK、T\_UN\_POKE中的SORTNUM字段中，作为发送给电控的任务顺序。异形烟因为要与正常烟进行合并包装，所以同一订单中正常烟及异形烟会分配同一任务号及包装机号，若订单中只有异形烟，无正常烟，则分配给该订单的包装机号同上一个正常烟包装机号相同。

### 数据库设计

T\_PRODUCE\_TASK、T\_ PRODUCE \_POKE、T\_UN\_TASK、T\_UN\_POKE表结构详细设计见。

### 存储过程

P\_PRODUCE\_UPDATESORTNUM：

BEGIN

*--没有状态为0的数据*

select count(\*) into temp\_count from t\_produce\_task where state='10';

if temp\_count =0 then

p\_ErrCode:='0';

p\_ErrMsg:='没有可排序的数据!';

return;

end if ;

*--取sortnum初始值*

SELECT decode(MAX(sortnum),NULL,0,MAX(sortnum)) INTO var\_sortnum FROM t\_produce\_task where to\_number(state)>=15;*--已经排程好,有可能已经处于分拣中*

*--取虚拟出口号初始值*

SELECT decode(MAX(exportnum),NULL,0,MAX(exportnum)) INTO var\_exportnum FROM t\_produce\_task where to\_number(state)>=15;*--已经排程好*

temp\_numperroute :=2;*--每个车组取几个订单，为了减少合流前的摇摆次数，此值可超过1*

*--计算有几根主皮带，并排好顺序,使用一个临时表t\_produce\_taskmainbelt*

*--取第一根主皮带*

temp\_whilecount :=1;

while temp\_whilecount<=4 loop*--最多选排在前面的四个车组看分配了那些主皮带*

*--先判断有无需要排序的任务*

select count(\*) into temp\_count from t\_produce\_task where state='10';

if temp\_count>0 then

*--如果有，取最小订单号的车组号和主皮带号，找出接下来的车组的主皮带分配顺序，1，2，3，4或2，3，4，1等等*

select task.mainbelt,task.regioncode into temp\_mainbelt,temp\_regioncode from t\_produce\_task task where task.tasknum =(select min(tasknum) from t\_produce\_task where state='10');

select count(\*) into temp\_count from t\_produce\_taskmainbelt where mainbelt=temp\_mainbelt ;

if temp\_count=0 then *--没有该主皮带号则加入临时表中*

insert into t\_produce\_taskmainbelt(mainbelt,seq,regioncode) values (temp\_mainbelt,temp\_whilecount,temp\_regioncode);

update t\_produce\_task set state='12' where mainbelt=temp\_mainbelt and regioncode=temp\_regioncode ;*--状态为12是个临时状态*

end if;

end if;

temp\_whilecount :=temp\_whilecount+1;

end loop;

*--将状态临时置为12的订单恢复为10*

update t\_produce\_task task set task.state='10' where task.state='12' and task.regioncode in (select regioncode from t\_produce\_taskmainbelt);

*--此时t\_produce\_taskmainbelt应该有数据*

*--循环排程中的主皮带，这里是认为排完程后不会再排一次并修改部分主皮带不可用*

select count(\*) into temp\_count from t\_produce\_task where state=10;

while temp\_count >0 loop

open lst\_mainbelt for

select mainbelt from t\_produce\_taskmainbelt order by seq;*--按顺序*

loop

fetch lst\_mainbelt into temp\_mainbelt;

exit when lst\_mainbelt%notfound;

temp\_whilecount :=1;

while temp\_whilecount<= temp\_numperroute loop

select count(\*) into temp\_tt from t\_produce\_task where state='10' and mainbelt= temp\_mainbelt;

if temp\_tt > 0 then

select min(tk.tasknum) into var\_tasknum

from t\_produce\_task tk where tk.state='10' and tk.mainbelt= temp\_mainbelt;

var\_sortnum :=var\_sortnum+1;

var\_exportnum := mod(var\_sortnum,80);*--合流需要八十个出口号,一个订单一个合流出口号，可以直接和sortnum绑定*

if var\_exportnum =0 then

var\_exportnum :=80;

end if;

*--更新任务和明细表中的sortnum*

update t\_produce\_task task set task.state=15,task.exportnum=var\_exportnum,task.sortnum = var\_sortnum where task.tasknum=var\_tasknum;

*--update t\_produce\_taskline set sortnum= var\_sortnum where tasknum=var\_tasknum;*

update t\_produce\_poke set sortnum= var\_sortnum ,sortstate=8,unionstate=10,machinestate=10,unionexportnum=var\_exportnum *--排序后可以向电控发送任务了*

where tasknum=var\_tasknum;

*--更新异形烟的顺序,对于只有异形烟的订单会更新不到*

update t\_un\_task ut set ut.state=20,ut.sortnum = var\_sortnum where ut.tasknum=var\_tasknum;

update t\_un\_poke up set up.status=10,up.sortnum = var\_sortnum where up.tasknum=var\_tasknum;

end if;

temp\_whilecount :=temp\_whilecount+1;

end loop;

end loop;

close lst\_mainbelt;

*--看是否还有未分配sortnum的任务*

select count(\*) into temp\_count from t\_produce\_task where state='10';

end loop;*--while temp\_count >0 loop*

*--删除临时表*

delete from t\_produce\_taskmainbelt ;

*---------------------------------------------------------------------------------------*

*--需要对poke表中的预分拣出口号重新排序*

P\_PRODUCE\_updateexportnum(p\_ErrCode,p\_ErrMsg);

*--对异形烟任务中的纯异型烟烟任务进行排序，这些任务是接着顺序来*

commit;

p\_ErrCode:='1';

p\_ErrMsg:='排序计划完成！';

RETURN; *--成功*

Exception when others THEN

BEGIN

p\_ErrCode:='0';

p\_ErrMsg:='排序计划有错：'||sqlerrm;

P\_XT\_HTCCXX(sqlcode,sqlerrm,'P\_PRODUCE\_updatesortnum');

ROLLBACK;

RETURN;

END;

end;

## 下发数据

在排程完成后，在分拣任务表T\_PRODUCE\_POKE表及异形烟分拣任务表T\_UN\_POKE表中会根据订单数据及排程规则生成排程后的订单数据。通过排程系统将已经排程好的订单数据分别下发给预分拣、机械手、合流、打码机。

### 预分拣

发送给预分拣PLC的数据为：任务号、烟道吸烟数量、放烟位置、总数量、皮带号，读写标志。数据发送后及任务完成后，会更新T\_PRODUCE\_POKE个中的预分拣状态位SORTSTATE（10：排好序；15：发送；20：完成）。

### 机械手

发送给机械手PLC的数据为：任务号、吸烟数量、合单号、读写标志。数据发送后及任务完成后，会更新T\_PRODUCE\_POKE个中的机械手抓烟状态位MACHINESTATE（10：排好序；15：发送；20：完成）。

### 合流

发送给合流PLC的数据为每组的吸烟数量、任务号、读写标志、包装机号。数据发送后及任务完成后，会更新T\_PRODUCE\_POKE个中的合流状态位UNIONSTATE（10：排好序；15：发送；20：完成）。

### 打码

由WMS系统将每条主皮带对应的订单写入TXT文件，压缩后，通过socket发送给打码工控机，工控机通过中续器和激光打码机进行信息交互，当条烟经过打码区时，对条烟进行打码，不区分是否是异型烟。

## 数据备份

### 正常烟数据备份

当天分拣任务完成后，分拣子系统的正常烟订单主表T\_PRODUCE\_ORDER、订单明细表T\_PRODUCE\_ORDERLINE、任务主表T\_PRODUCE\_TASK、任务明细表T\_PRODUCE\_TASKLINE中的数据通过存储过程P\_PRODUCE\_REMOVE备份至历史订单主表T\_PRODUCE\_ORDER\_H、历史订单明细表T\_PRODUCE\_ORDERLINE\_H、历史任务主表T\_PRODUCE\_TASK\_H、历史任务明细表T\_PRODUCE\_TASKLINE\_H中，清除分拣任务表T\_PRODUCE\_POKE中的数据，并将分拣主皮带设置成初始状态，为下一次分拣做准备。

### 异形烟表数据备份

当天分拣任务完成后，分拣子系统的异形烟订单主表T\_UN\_ORDER、订单明细表T\_UN\_ORDERLINE、任务主表T\_UN\_TASK、任务明细表T\_UN\_TASKLINE中的数据通过存储过程P\_UN\_REMOVE备份至历史订单主表T\_UN\_ORDER\_H、历史订单明细表T\_UN\_ORDERLINE\_H、历史任务主表T\_UN\_TASK\_H、历史任务明细表T\_UN\_TASKLINE\_H中，清除异形烟分拣任务表T\_UN\_POKE中的数据。

### 数据库设计

#### 表设计

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **表名** | T\_PRODUCE\_TASK\_H | | | 描述 | | 正常烟历史任务表 | | | | | | | | **库名** | | Iform |
| **序号** | **索引名称** | | | **索引关键词** | | | | | | | | | | **唯一** | | **聚族** |
| 01 | PK\_T\_TASK | | | TASKNUM | | | | | | | | | | Y | | N |
| **序号** | **字段名描述** | | | **字段标识** | | | | **类型长度** | | **空** | **主** | **外** | **Def** | **备注** | | |
|  | 任务号 | | | TASKNUM | | | | NUMBER | |  | Y |  |  |  | | |
|  |  | | | LINENUM | | | | VARCHAR2(10) | |  |  |  |  |  | | |
|  | 车组编号 | | | REGIONCODE | | | | VARCHAR2(20) | | Y |  |  |  |  | | |
|  | 车组名称 | | | REGIONDESC | | | | VARCHAR2(30) | | Y |  |  |  |  | | |
|  | 订单号 | | | BILLCODE | | | | VARCHAR2(30) | | Y |  |  |  |  | | |
|  | 公司编码 | | | COMPANYCODE | | | | VARCHAR2(10) | | Y |  |  |  |  | | |
|  | 公司名称 | | | COMPANYNAME | | | | VARCHAR2(20) | | Y |  |  |  |  | | |
|  | 批次号 | | | BATCHCODE | | | | VARCHAR2(12) | | Y |  |  |  |  | | |
|  | 接收次序号 | | | SYNSEQ | | | | INTEGER | | Y |  |  |  |  | | |
|  | 零售户专卖证号 | | | CUSTOMERCODE | | | | VARCHAR2(20) | | Y |  |  |  |  | | |
|  | 订单数量 | | | ORDERQUANTITY | | | | NUMBER(10,2) | | Y |  |  |  |  | | |
|  | 客户名称 | | | CUSTOMERNAME | | | | VARCHAR2(200) | | Y |  |  |  |  | | |
|  | 订单金额 | | | ORDERMONEY | | | | NUMBER(8,2) | | Y |  |  |  |  | | |
|  | 任务数量 | | | TASKQUANTITY | | | | NUMBER(10,2) | | Y |  |  |  |  | | |
|  |  | | | CAPACITY | | | | NUMBER(10,2) | | Y |  |  |  | 暂无使用 | | |
|  | 优先级 | | | PRIORITY | | | | NUMBER(8) | | Y |  |  |  |  | | |
|  | 箱数 | | | TASKBOX | | | | VARCHAR2(20) | | Y |  |  |  |  | | |
|  | 包装类型 | | | PACKAGEID | | | | VARCHAR2(10) | | Y |  |  |  |  | | |
|  | 包装描叙 | | | PACKAGEDESC | | | | VARCHAR2(20) | | Y |  |  |  |  | | |
|  | 排序号 | | | SORTSEQ | | | | NUMBER | | Y |  |  |  |  | | |
|  |  | | | LABLENUM | | | | VARCHAR2(20) | | Y |  |  |  | 暂无使用 | | |
|  | 计划日期 | | | PLANTIME | | | | DATE | | Y |  |  |  |  | | |
|  | 分拣时间 | | | SORTTIME | | | | DATE | | Y |  |  |  |  | | |
|  | 结束时间 | | | FINISHTIME | | | | DATE | | Y |  |  |  |  | | |
|  | 状态 | | | STATE | | | | VARCHAR2(20) | | Y |  |  |  | 0:新增；10:为生成poke，15sortnum指定完毕 20:正在分拣 30:完成 | | |
|  |  | | | LABELBATCH | | | | NUMBER(3) | | Y |  |  |  | 暂时未使用 | | |
|  | 托盘号 | | | PALLETNUM | | | | NUMBER | | Y |  |  |  |  | | |
|  | 主皮带号 | | | MAINBELT | | | | NUMBER | | Y |  |  |  |  | | |
|  | 包装机编号 | | | PACKAGEMACHINE | | | | INTEGER | | Y |  |  |  |  | | |
|  | 分拣排序 | | | SORTNUM | | | | INTEGER | | Y |  |  |  |  | | |
| **说明：正常烟历史任务表** | | | | | | | | | | | | | | | | |
| **作者** | | 唐建林 | **修订者** | |  | | **日期** | | 2017-12-08 | | | | | **版本** | 1．0 | |

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| **表名** | T\_PRODUCE\_TASKLINE\_H | | | **描述** | | 正常烟历史任务明细表 | | | | | | | | **库名** | | IFORM |
| **序号** | **索引名称** | | | **索引关键词** | | | | | | | | | | **唯一** | | **聚族** |
| 01 | PK\_T\_TASKLINE | | | TASKNUM, CIGARETTECODE | | | | | | | | | | Y | | N |
| **序号** | **字段名描述** | | | **字段标识** | | | | **类型长度** | | **空** | **主** | **外** | **Def** | **备注** | | |
|  | 任务号 | | | TASKNUM | | | | NUMBER | | N | Y |  |  |  | | |
|  | 品牌编码 | | | CIGARETTECODE | | | | VARCHAR2(10) | | N | Y |  |  |  | | |
|  | 品牌名称 | | | CIGARETTENAME | | | | VARCHAR2(30) | | N |  |  |  |  | | |
|  | 数量 | | | QUANTITY | | | | NUMBER(10,1) | | N |  |  |  |  | | |
|  | 单位 | | | UNIT | | | | VARCHAR2(5) | | N |  |  |  |  | | |
|  |  | | | ALLOWSORT | | | | VARCHAR2(4) | | N |  |  |  | 暂时无用 | | |
|  | 排序号 | | | SORTNUM | | | | INTEGER | | N |  |  |  |  | | |
| **说明：正常烟历史任务明细表** | | | | | | | | | | | | | | | | |
| **作者** | | 唐建林 | **修订者** | |  | | **日期** | | 2017-12-08 | | | | | **版本** | 1．0 | |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **表名** | T\_UN\_TASK\_H | | | **描述** | | 异形烟历史任务表 | | | | | | | | | **库名** | | | Zoomtel |
| **序号** | **索引名称** | | | **索引关键词** | | | | | | | | | | | **唯一** | | **聚族** | |
| 01 | PRIUN\_TASKNUM | | | TASKNUM | | | | | | | | | | | Y | | Y | |
| **序号** | **域名描述** | | | **域标识** | | | | **类型长度** | | **空** | **主** | **外** | **Def** | | **备注** | | | |
| 01 | 任务号 | | | TASKNUM | | | | NUMBER | | N | Y |  |  | |  | | | |
| 02 | 异型烟分拣线１，２ | | | LINENUM | | | | VARCHAR2(10) | | N | Y |  |  | |  | | | |
| 03 | 虚拟号备用 | | | EXPORTNUM | | | | VARCHAR2(10) | | Y |  |  |  | |  | | | |
| 04 | 车组code | | | REGIONCODE | | | | VARCHAR2(20) | | Y |  |  |  | |  | | | |
| 05 | 车组描述 | | | REGIONDESC | | | | VARCHAR2(30) | | Y |  |  |  | |  | | | |
| 06 | 订单号 | | | BILLCODE | | | | VARCHAR2(80) | | Y |  |  |  | |  | | | |
| 07 | 公司编码 | | | COMPANYCODE | | | | VARCHAR2(10) | | Y |  |  |  | | 备用 | | | |
| 08 | 公司名称 | | | COMPANYNAME | | | | VARCHAR2(20) | | Y |  |  |  | | 备用 | | | |
| 09 | 批次 | | | BATCHCODE | | | | VARCHAR2(12) | | Y |  |  |  | |  | | | |
| 10 | 接收批次 | | | SYNSEQ | | | | INTEGER | | Y |  |  |  | |  | | | |
| 11 | 客户编码 | | | CUSTOMERCODE | | | | VARCHAR2(20) | | Y |  |  |  | |  | | | |
| 12 | 订单数量 | | | ORDERQUANTITY | | | | NUMBER(10,2) | | Y |  |  |  | |  | | | |
| 13 | 客户名称 | | | CUSTOMERNAME | | | | VARCHAR2(200) | | Y |  |  |  | |  | | | |
| 14 | 订单金额 | | | ORDERMONEY | | | | NUMBER(8,2) | | Y |  |  |  | |  | | | |
| 15 | 任务数量 | | | TASKQUANTITY | | | | NUMBER(10,2) | | Y |  |  |  | |  | | | |
| 16 | 优先级 | | | PRIORITY | | | | NUMBER(8) | | Y |  |  |  | |  | | | |
| 17 | 箱数 | | | TASKBOX | | | | VARCHAR2(20) | | Y |  |  |  | | 备用 | | | |
| 18 | 排序 | | | SORTSEQ | | | | NUMBER | | Y |  |  |  | |  | | | |
| 19 |  | | | LABLENUM | | | | VARCHAR2(20) | | Y |  |  |  | | 备用 | | | |
| 20 | 计划时间 | | | PLANTIME | | | | DATE | | Y |  |  |  | |  | | | |
| 21 | 分拣时间 | | | SORTTIME | | | | DATE | | Y |  |  |  | |  | | | |
| 22 | 结束时间 | | | FINISHTIME | | | | DATE | | Y |  |  |  | |  | | | |
| 23 | 标志位 | | | STATE | | | | VARCHAR2(20) | | Y |  |  |  | | 10 新增 20 排程 30完成 | | | |
| 24 |  | | | LABELBATCH | | | | NUMBER(3) | | Y |  |  |  | |  | | | |
| 25 |  | | | PALLETNUM | | | | NUMBER | | Y |  |  |  | |  | | | |
| 26 |  | | | EXISTRCD | | | | NUMBER | | Y |  |  |  | |  | | | |
| 27 | 订单日期 | | | ORDERDATE | | | | DATE | | Y |  |  |  | |  | | | |
| 28 | 主皮带号 | | | MAINBELT | | | | NUMBER | | Y |  |  |  | |  | | | |
| 29 | 包装机号 | | | PACKAGEMACHINE | | | | INTEGER | | Y |  |  |  | |  | | | |
| 30 | 第一排序号 | | | SORTNUM | | | | INTEGER | | Y |  |  |  | |  | | | |
| 31 | 第二排序号 | | | SECSORTNUM | | | | INTEGER | | Y |  |  |  | |  | | | |
| **说明：异形烟历史任务表** | | | | | | | | | | | | | | | | | | |
| **作者** | | 邓新科 | **修订者** | |  | | **日期** | | 2017-12-11 | | | | | **版本** | | 2．8 | | |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **表名** | T\_UN\_TASKLINE\_H | | | **描述** | | 异形烟历史任务明细表 | | | | | | | | | **库名** | | | Zoomtel |
| **序号** | **索引名称** | | | **索引关键词** | | | | | | | | | | | **唯一** | | **聚族** | |
| 01 | PRI\_TASKLINE\_TASKNUMC | | |  | | | | | | | | | | | N | | Y | |
| **序号** | **域名描述** | | | **域标识** | | | | **类型长度** | | **空** | **主** | **外** | **Def** | | **备注** | | | |
| 01 | 任务号 | | | TASKNUM | | | | NUMBER | |  |  | Y |  | |  | | | |
| 02 | 卷烟代码 | | | CIGARETTECODE | | | | VARCHAR2(10) | |  | Y |  |  | |  | | | |
| 03 | 卷烟名称 | | | CIGARETTENAME | | | | VARCHAR2(30) | |  |  |  |  | |  | | | |
| 04 | 数量 | | | QUANTITY | | | | NUMBER(10,1) | |  |  |  |  | |  | | | |
| 05 | 单位 | | | UNIT | | | | VARCHAR2(5) | |  |  |  |  | |  | | | |
| 06 |  | | | ALLOWSORT | | | | VARCHAR2(4) | |  |  |  |  | |  | | | |
| **说明：异形烟历史任务明细表** | | | | | | | | | | | | | | | | | | |
| **作者** | | 唐建林 | **修订者** | |  | | **日期** | | 2017-12-11 | | | | | **版本** | | 2．8 | | |

### 存储过程

P\_PRODUCE\_REMOVE

BEGIN

*--标志位0时,将订单和任务一起移到历史表*

*--标志位1时,将订单移到历史表*

*--标志位2时,将任务移到历史表*

*--标志位3时,删除拨烟计划*

*--标志位4时,将件烟补货计划移到历史表*

*--标志位5时,将托盘补货计划移到历史表*

*--20170527暂时这样，不知要将异型烟任务等部分放到一起处理*

IF bz=0 THEN

*--备份尾数表*

select To\_Char(Sysdate,'YYYYMMDD') into var\_date from dual;

*--execute immediate 'create table t\_produce\_sorttrough'|| var\_date ||' as select \* from t\_produce\_sorttrough';*

*--备份尾数到字段*

*--update T\_PRODUCE\_SORTTROUGH set lastmantissa=mantissa where cigarettetype in(10,20);*

*--将订单主表数据插入历史订单主表中*

INSERT INTO t\_produce\_order\_h

(SELECT ord.\*,sysdate FROM t\_produce\_order ord);

*--删除订单主表*

delete from t\_produce\_order;

*--将订单明细表数据插入历史订单明细表中*

INSERT INTO t\_produce\_orderline\_h

(SELECT orderline.\*,sysdate FROM t\_produce\_orderline orderline);

*--删除订单明细表*

delete from t\_produce\_orderline;

*--将任务主表数据插入历史任务主表中*

INSERT INTO t\_produce\_task\_h(SELECT task.\*,sysdate FROM t\_produce\_task task);

*--删除任务主表*

delete from t\_produce\_task;

*--将任务明细表数据插入历史途径明细表中*

INSERT INTO t\_produce\_taskline\_h (SELECT taskline.\*,sysdate FROM t\_produce\_taskline taskline);

*--删除任务明细表*

delete from t\_produce\_taskline;

*--删除拨烟计划表*

DELETE t\_produce\_poke;

*--将分拣主皮带设置为初始状态*

update t\_produce\_sorttrough set linenum='0' where troughtype=30;

END IF;

IF bz=1 THEN

INSERT INTO t\_produce\_order\_h

(SELECT ord.\*,sysdate FROM t\_produce\_order ord);

delete from t\_produce\_order;

INSERT INTO t\_produce\_orderline\_h

(SELECT orderline.\*,sysdate FROM t\_produce\_orderline orderline);

delete from t\_produce\_orderline;

END IF;

IF bz=2 THEN

INSERT INTO t\_produce\_task\_h(SELECT task.\*,sysdate FROM t\_produce\_task task);

delete from t\_produce\_task;

INSERT INTO t\_produce\_taskline\_h (SELECT taskline.\*,sysdate FROM t\_produce\_taskline taskline);

delete from t\_produce\_taskline;

END IF;

IF bz=3 THEN

DELETE t\_produce\_poke;

END IF;

IF bz=4 THEN

INSERT INTO t\_produce\_replenishplan\_h(SELECT \* FROM t\_produce\_replenishplan);

delete from t\_produce\_replenishplan;

END IF;

IF bz=5 THEN

INSERT INTO T\_PRODUCE\_PALLETREPLENISH\_H(SELECT \* FROM t\_produce\_palletreplenishplan);

delete from t\_produce\_palletreplenishplan;

END IF;

COMMIT;

end;

P\_UN\_REMOVE

BEGIN

*--将任务表移到历史任务表*

INSERT INTO t\_un\_task\_h(SELECT task.\*,sysdate FROM t\_un\_task task);

*--删除任务表*

delete from t\_un\_task;

*--将任务明细移到历史任务明细表*

INSERT INTO t\_un\_taskline\_h(SELECT taskline.\*,sysdate FROM t\_un\_taskline taskline);

*--删除任务明细表*

delete from t\_un\_taskline;

*--将订单表移到历史订单表*

insert into t\_un\_order\_h(select \* from t\_un\_order);

*--删除订单表*

delete from t\_un\_order;

*--将订单明细表移到历史订单明细表*

insert into t\_un\_orderline\_h(select \* from t\_un\_orderline);

*--删除订单明细表*

delete from t\_un\_orderline;

*--删除拨烟计划*

delete from t\_un\_poke;

COMMIT;

end;